Shell Oil Company

P.O. Box 2463
One Shell Plaza
14th Floor
Houston, TX 77252-2463

Legal Organization

900 Louisiana
One Shell Plaza
14th Floor
Houston, TX 77002

VIA AIRBORNE EXPRESS

February 14, 1995

Mr. William Tucker, Esq.
Office of Regional Counsel
United States Environmental Protection Agency
Region II
26 Federal Plaza, Room 309
Jacob K. Javits Federal Building
New York, NY 10278

SUBJECT: Request for Information Under 42 U.S.C. §9604 and 42 U.S.C. §6907 Concerning the Scientific Chemical Processing ("SCP") Superfund Site, Carlstadt, New Jersey

Dear Mr. Tucker:

This letter and its attachments constitute the response of Shell Oil Company ("Shell") to the above referenced Information Request dated January 5, 1995. Shell is answering on behalf of Shell Chemical Company, which is an unincorporated division of Shell. Two copies of the Information Request were sent to Shell Chemical Company, one to its principal office in Houston and a second c/o Kenneth Mack of the law firm of Picco Mack in Trenton, New Jersey. Shell is answering both Information Requests as part of this response.

Through a telephone conversation of January 31, confirmed by letter of that same date, Mr. Puvogel granted Shell an extension of time to answer the Information Request until February 16. We appreciate your courtesies in this regard.

Shell has conducted a diligent and thorough review of its records and has contacted knowledgeable persons during the time period allowed for this response. If Shell discovers further responsive information at a later date, Shell reserves the right to supplement this response.

EPA DEMAND FOR RECORDS

Pursuant to its authority under Section 104(e) of CERCLA, EPA demands that your company produce the following documents:

a. All records which are dated, were created during or which refer to the period between the years 1965 and 1982 inclusive relating to shipments of equipment, by-products, co-products, sludge, spent material, waste material to or by Energall;

b. All records which are dated, were created during or which refer to the period between the years 1965 and 1982 inclusive relating to shipments of equipment, by-products, co-products, sludge, spent material, waste material or other material to or by SCP;

c. All records which are dated, were created during or which refer to the period between the years 1965 and 1969 inclusive relating to shipments of equipment, by-products, co-products, sludge, spent material, waste material or other materials to or by SCTC or SCI;

d. All records which are dated, were created during or which refer to the period between the years 1945 and 1965 inclusive relating to shipments of equipment, by-products, co-products, sludge, spent material, waste material or other materials to or by NJR;

e. All records which are dated, were created during or which refer to the period between the years 1969 and 1982 inclusive relating to shipments of equipment, by-products, co-products, sludge, spent material, waste material or other materials to or by SECSI;

f. All records which are dated, were created during or which refer to the period between the years 1945 and 1982 inclusive relating to shipments of equipment, by-products, co-products, sludge, spent material, waste material or other materials to the Site;

g. All records which are dated, were created during or which refer to the period between the years 1965 and 1982 inclusive relating to any contracts, agreements, purchases, sales or similar business transactions between you and SCP;

h. All records which are dated, were created during or which refer to the period between the years 1965 and 1982 inclusive relating to any contracts, agreements, purchases, sales or similar business transactions between you and Energall;

i. All records which are dated, were created during or which refer to the period between the years 1965 and 1969 inclusive relating to any contracts, agreements, purchases, sales or similar business transactions between you and SCTC, SCI and/or Marvin Mahan;

j. All records which are dated, were created during or which refer to the period between the years 1945 and 1982 inclusive relating to any contracts, agreements, purchases, sales or similar business transactions between you and NJR;

k. All records which are dated, were created during or which refer to the period between the years 1965 and 1982 inclusive relating to any contracts, agreements, purchases, sales or similar business transactions between you and SECSI;

l. All records relating to the identification, nature, quantity and/or disposal of any materials shipped by any person or entity to the SCP site;

RESPONSE TO A. THROUGH L.

The responsive records for Shell relate to a single incident involving a fire at the Harvard Warehouse in Kearny, New Jersey, which occurred on August 2, 1971. The responsive documents are produced in response to Items B, F, G, and L of the above EPA Demand for Records. Since all these documents relate to material associated with the Harvard Warehouse fire, no method exists of further segregating these documents beyond the four requests identified.

RESPONSES

REQUEST NO. 1.

Present legal name and address:

RESPONSE TO REQUEST NO. 1.

Shell Oil Company
P.O. Box 2463
Houston, TX 77252

REQUEST NO. 2.

Legal name and address of parent corporation(s) between 1945 and the present date:

RESPONSE TO REQUEST NO. 2.

Shell Oil Company is wholly owned by Shell Petroleum, Inc., a Delaware Corporation, whose shares are directly or indirectly owned 60% by Royal Dutch Petroleum Company, The Hague, The Netherlands, and 40% by the "Shell" Transport and Trading Company, Public Limited Company, London, England. Royal Dutch Petroleum Company and the "Shell" Transport and Trading Company, Public Limited Company, are holding companies which together directly or indirectly own securities of companies of the Royal Dutch/Shell Group of Companies.

Shell objects to the request to the extent it calls for a historical description of the ownership of parent corporations between 1945 and the present date. Such request is overly burdensome and unreasonably broad. Such information is not readily available in a form describable or producible herewith. To the extent the EPA has a need for this information, we would be glad to respond to any specific inquiries in this regard.

REQUEST NO. 3.

Legal name and address of each subsidiary corporation(s) between 1945 and the present date which did business east of the Mississippi River and north of South Carolina:

RESPONSE TO REQUEST NO. 3.

Attached hereto you will find a current list of the subsidiaries/affiliates of Shell Oil Company. These are entities in which Shell owns an equity interest.

Shell objects to Question 3 wherein it requests that Shell identify each subsidiary corporation which existed between 1945 and the present date which did business east of the Mississippi River and north of South Carolina. Such request is overly burdensome and unreasonably broad. The requested information is not readily available to Shell. Subject to and without waiving the general objections incorporated herein, Shell responds that it is a large corporation with numerous past and present operations located throughout the United States. As with most major corporations, the history of Shell Oil Company includes numerous mergers, consolidations, acquisitions, sales, dissolutions, and other changes. The implications of which would be difficult, if not impossible to fully characterize in the absence of specific circumstances.

REQUEST NO. 4.

Legal name and address of predecessor corporation(s) and their subsidiaries which did business east of the Mississippi River and north of South Carolina between 1945 and the present date:

RESPONSE TO REQUEST NO. 4.

Please see Answer to No. 3. above.

REQUEST NO. 5.

Provide the name and address of all facilities owned and/or operated by your company or any company identified in response to questions 2 through 4 above which did business east of the Mississippi River and north of South Carolina between 1945 and 1982:

RESPONSE TO REQUEST NO. 5.

Shell objects to this question as being overly burdensome and unreasonably broad. As indicated above, Shell is a large corporation with numerous past and present operations located throughout the United States. The number of facilities for which the instant question seeks identification numbers in the hundreds, and such information is not kept by Shell in any retrievable fashion that would allow us to provide the information in response to this request.

REQUEST NO. 6.

State whether your company or any company identified in response to questions 2 through 4 above has any EPA ID number(s) under RCRA, and if so, provide the name of each company, location or subsidiary which did business east of the Mississippi River and north of South Carolina between 1945 and 1982 possessing such an ID number and the address of such company, location or subsidiary:

RESPONSE TO REQUEST NO. 6.

There are scores of Shell Oil Company facilities located within the geographic boundaries described in Question 6 for which EPA has issued ID numbers under RCRA. Shell does not have any central listing of such RCRA ID numbers. All such RCRA ID numbers are secured by the facility locations themselves, not through Shell's Head Office. The Resource Conservation and Recovery Information System ("RCRIS") is available on EPA's mainframe computer through the Office of Solid Waste and Emergency Response, Office of Solid Waste. The RCRIS system tracks a range of information related to facilities involved with hazardous waste, including handler identification, permit application status, compliance monitoring, and now sensitive enforcement information.

REQUEST NO. 7.

For every instance in which SCP shipped, transported, received, accepted or otherwise managed any waste material, equipment or other material from your company or any company or facility listed in response to questions 1 through 6 above between 1969 and 1982 inclusive:

a. state the date of each such occasion;

b. identify the equipment, waste, or material involved;

c. describe the nature and quantity of the equipment, waste or other material involved;

d. state the purpose for which SCP shipped, transported, received, accepted or otherwise managed the equipment, waste, or material involved;

e. identify the location(s) to which the equipment, waste or other material involved was taken;

f. explain the reason or purpose in having the equipment, waste, or other material involved taken to the identified location for each such occasion;

g. state whether any of the equipment, waste, or other material managed by SCP was shipped or transported back to your company by SCP; if so, identify the equipment, waste or other material involved in such shipments and the amount or quantity of same, the date(s), and the reasons for the shipment(s);

h. if you contend that any of the equipment, waste or other material referred to in a. through g. above is co-product or not waste material, provide all details and documents which support that contention.

RESPONSE TO REQUEST NO. 7.

a. September 1971.

b. Debris from a warehouse fire.

c. The debris consisted of an approximate amount of 600 to 650 cubic yards of material from a fire at the Harvard Warehouse in Kearny, New Jersey, where Shell, among other parties, had stored products. Under the auspices, approval and direction of state and federal authorities, the materials were sent to the SCP site in Carlstadt, New Jersey. See the attached report for more detailed information. Not all of the attached report is relevant to the EPA's inquiries, but for purposes of completeness, the whole report is being produced herewith.

d. Please see the answer to 7c above.

e. Please see the answer to 7c above.

f. Please see the answer to 7c above.

g. No.

h. Not applicable.

REQUEST NO. 8.

For every instance in which Energall shipped, transported, received, accepted or otherwise managed any waste, equipment or other material from your company or any company or facility listed in response to questions 2 through 6 above between 1969 and 1982 inclusive, state:

a. the date of each such occasion;

b. identify the equipment, waste, or material involved;

c. describe the nature and quantity, of the equipment, waste or other material involved;

d. state the purpose for which Energall shipped, transported, received, accepted or otherwise managed the equipment, waste, or material involved;

e. identify the location(s) to which the equipment, waste or other material involved was taken;

f. explain the reason or purpose in having the equipment, waste, or other material involved taken to the identified location, for each such occasion;

g. state whether any of the equipment, waste, or other material managed by Energall was shipped or transported back to your company by energall; if so, identify the equipment, waste or other material involved in such shipments and the amount or quantity of same, the date(s), and the reasons for the shipment(s).

h. if you contend that any of the equipment, waste or other material referred to in a. through g. above is co-product or is not waste material provide all details and documents which support that contention.

RESPONSE TO REQUEST NO. 8 A. THROUGH H.

Not applicable.

REQUEST NO. 9.

For every instance in which SCTC, SCI or Marvin Mahan shipped, transported, received, accepted or otherwise managed any waste, equipment or other material from your company or any company or facility listed in response to questions 2 through 6 above between 1965 and 1969 inclusive, state:

a. the date of each such occasion;

b. identify the equipment, waste, or material involved;

c. describe the nature and quantity of the equipment, waste or other material involved;

d. state the purpose for which SCTC, SCI or Marvin Mahan shipped, transported, received, accepted or otherwise managed the equipment, waste or material involved;

e. identify the location(s) to which the equipment, waste or other material involved was taken;

f. explain the reason or purpose in having the equipment, waste, or other material involved taken to the identified location, for each such occasion;

g. state whether any of the equipment, waste, or other material managed by SCTC was shipped or transported back to your company by SCTC; if so, identify the equipment, waste or other material involved in such shipments and the amount or quantity of same, the date(s), and the reasons for the shipment(s);

h. if you contend that any of the equipment, waste or other material referred to in a. through g. above is co-product or is not waste

material provide all details and documents which support that contention.

RESPONSE TO REQUEST NO. 9 A. THROUGH H.

Not applicable.

REQUEST NO. 10.

10. For every instance in which NJR shipped, transported, received, accepted or otherwise managed any waste, equipment or other material from your company or any company or facility listed in response to questions 2 through 6 above between 1945 and 1982 inclusive, state:

    a. the date of each such occasion;

    b. identify the equipment, waste, or material involved;

    c. describe the nature and quantity of the equipment, waste or other material involved;

    d. state the purpose for which NJR shipped, transported, received, accepted or otherwise managed the equipment, waste, or material involved;

    e. identify the location(s) to which the equipment, waste or other material involved was taken;

    f. explain the reason or purpose in having the equipment, waste, or other material involved taken to the identified location, for each such occasion;

    g. state whether any of the equipment, waste, or other material managed by NJR was shipped or transported back to your company by NJR; if so, identify the equipment, waste or other material involved in such shipments and the amount or quantity of same, the date(s), and the reasons for the shipment(s);

    h. if you contend that any of the equipment, waste or other material referred to in a. through g. above is co-product or is not waste material provide all details and documents which support that contention.

RESPONSE TO REQUEST NO. 10 A. THROUGH H.

Not applicable.

REQUEST NO. 11.

For every instance in which SECSI shipped, transported, received, accepted or otherwise managed any waste, equipment or other material from your company or any company or facility listed in response to questions 2 through 6 above between 1965 and 1982 inclusive, state:

a. the date of each such occasion;

b. identify the equipment, waste, or material involved;

c. describe the nature and quantity of the equipment, waste or other material involved;

d. state the purpose for which SECSI shipped, transported, received, accepted or otherwise managed the equipment, waste, or material involved;

e. identify the location(s) to which the equipment, waste or other material involved was taken;

f. explain the reason or purpose in having the equipment, waste, or other material involved taken to the identified location, for each such occasion;

g. state whether any of the equipment, waste, or other material managed by SECSI was shipped or transported back to your company by SECSI; if so, identify the equipment, waste or other material involved in such shipments and the amount or quantity of same, the date(s), and the reasons for the shipment(s);

h. if you contend that any of the equipment, waste or other material referred to in a. through g. above is co-product or is not waste material provide all details and documents which support that contention.

RESPONSE TO REQUEST NO. 11 A. THROUGH H.

Not applicable.

REQUEST NO. 12.

Has your company or any company or facility listed in response to questions 2 through 6 above ever shipped, transported or otherwise delivered or had delivered any equipment, waste and/or other material to the SCP Site? If so, identify for each such occasion:

a. Nature and quantity of equipment, waste or material shipped

b. Date(s) of shipment

c. Purpose of such shipment(s)

RESPONSE TO REQUEST NO. 12 A. THROUGH C.

See answer to Question 7 above.

REQUEST NO. 13.

Detail all information in your company's files or available to your company relating to shipments of equipment, waste or other material to the SCP Site including:

a. Nature and quantity of equipment, waste or material shipped

b. Date(s) of shipment

c. Purpose of such shipment(s)

d. Name and last known address and telephone number of generator

e. Name and last known address and telephone number of transporter

f. Name and last known address and telephone number of each person with any information concerning such shipment

RESPONSE TO REQUEST NO. 13.

See our response to the EPA Demand For Records and the answer to Question 7. above.

REQUEST NO. 14.

Identify every person who is or was employed by or associated with your company or any company or facility listed in response to questions 2 through 6 above or acted as an agent for your company or any company or facility listed in response to questions 2 through 6 above who has any information concerning any shipments of equipment, waste or other materials by SCP (1965-1982 inclusive), Energall (1969-1982 inclusive), SCTC (1965-1969 inclusive), NJR (1945-1982 inclusive), SECSI (1969-1982 inclusive), or Marvin Mahan (1965-1969 inclusive) by stating for each person:

a. Name

b. Address

c. Position or Title

d. Telephone Number

RESPONSE TO REQUEST NO. 14.

Jim T. Robson	-	former manager at Shell's former Princeton plant (1948 - 1986); retired. Last known address: P.O. Box 331, Montrose Alabama 36559
John M. Connelly	-	former senior chemist-Assistant manager operations at Shell's former Princeton plant (1966 - 1986) Last known address: 3215 Spring Manor Drive, Kingwood, Texas 77345
R. L. Head	-	former Shell employee (deceased)
Ron C. Boffa	-	retired Shell employee Address: 11935 Normont, Houston, Texas 77070 Supervisor of shipping at former Princeton Plant (1970 - 1971)
F. A. Ruska	-	former Shell employee (1949 - 1980); Public Relations Representative GO Division - Houston/Stanford Conn. (1970 - 1971); Retired Last known address: 211 Masters Drive South Peach Tree City, Ga. 30269
Grant Walton	-	NJDEP, Division of Environmental Quality

REQUEST NO. 15.

Has your company or any company or facility listed in response to questions 2 through 6 above (including any past and present employee) transported or arranged for the transportation of any of the following material by SCP between 1965 and 1982:

	Yes	No
Hazardous Waste?	_____	_____
Hazardous Substance	_____	_____
Industrial waste material of any type?	_____	_____
Any wastewater treatment plant sludge or waste?	_____	_____
Any fly ash, bottom ash or other combustion waste products?	_____	_____
Any petroleum or petroleum waste products?	_____	_____
Any chemical waste of any type?	_____	_____
Any solvents, cleaning fluids or similar materials or waste?	_____	_____

	Yes	No
Any liquid waste or industrial by-products?	____	____
Any polychlorinated biphenyl (PCBs) or materials containing PCBs?	____	____
Any electric equipment such as transformers, capacitors, etc.?	____	____
Any dielectric coolant or transformer oil of any type?	____	____
Any sludge of any type?	____	____
Any volatile or flammable material?	____	____
Any materials in tanks, tanker truck or drums?	____	____
Any other material of any type?	____	____

RESPONSE TO REQUEST NO. 15.

Shell did not transport, nor arrange for the transportation by SCP, of any materials to the SCP site. However, please see the answer for 7c above, and the attached report.

REQUEST NO. 16.

Has your company or any company or facility listed in response to questions 2 through 6 above (including any past and present employee) transported or arranged for the transportation of any of the following substances by Energall between 1969 and 1982:

	Yes	No
Hazardous Waste?	____	X
Hazardous Substance	____	X
Industrial waste material of any type?	____	X
Any wastewater treatment plant sludge or waste?	____	X
Any fly ash, bottom ash or other combustion waste products?	____	X
Any petroleum or petroleum waste products?	____	X
Any chemical waste of any type?	____	X
Any solvents, cleaning fluids or similar materials or waste?	____	X
Any liquid waste or industrial by-products?	____	X
Any polychlorinated biphenyl (PCBs) or materials containing PCBs?	____	X
Any electric equipment such as transformers, capacitors, etc.?	____	X
Any dielectric coolant or transformer oil of any type?	____	X
Any sludge of any type?	____	X
Any volatile or flammable material?	____	X
Any materials in tanks, tanker truck or drums?	____	X
Any other material of any type?	____	X

REQUEST NO. 17.

Has your company or any company or facility listed in response to questions 2 through 6 above (including any past and present employee) transported or arranged for the transportation of any of the following substances by SCTC or SCI between 1965 and 1969:

	Yes	No
Hazardous Waste?		X
Hazardous Substance		X
Industrial waste material of any type?		X
Any wastewater treatment plant sludge or waste?		X
Any fly ash, bottom ash or other combustion waste products?		X
Any petroleum or petroleum waste products?		X
Any chemical waste of any type?		X
Any solvents, cleaning fluids or similar materials or waste?		X
Any liquid waste or industrial by-products?		X
Any polychlorinated biphenyl (PCBs) or materials containing PCBs?		X
Any electric equipment such as transformers, capacitors, etc.?		X
Any dielectric coolant or transformer oil of any type?		X
Any sludge of any type?		X
Any volatile or flammable material?		X
Any materials in tanks, tanker truck or drums?		X
Any other material of any type?		X

REQUEST NO. 18.

Has your company or any company or facility listed in response to questions 2 through 6 above (including any past and present employee) transported or arranged for the transportation of any of the following substances by SECSI between 1969 and 1982:

	Yes	No
Hazardous Waste?		X
Hazardous Substance		X
Industrial waste material of any type?		X
Any wastewater treatment plant sludge or waste?		X
Any fly ash, bottom ash or other combustion waste products?		X
Any petroleum or petroleum waste products?		X
Any chemical waste of any type?		X
Any solvents, cleaning fluids or similar materials or waste?		X
Any liquid waste or industrial by-products?		X

	Yes	No
Any polychlorinated biphenyl (PCBs) or materials containing PCBs?	____	X
Any electric equipment such as transformers, capacitors, etc.?	____	X
Any dielectric coolant or transformer oil of any type?	____	X
Any sludge of any type?	____	X
Any volatile or flammable material?	____	X
Any materials in tanks, tanker truck or drums?	____	X
Any other material of any type?	____	X

REQUEST NO. 19.

Has your company or any company or facility listed in response to questions 2 through 6 above (including any past and present employee) transported or arranged for the transportation of any of the following substances by NJR between 1945 and 1982:

	Yes	No
Hazardous Waste?	____	X
Hazardous Substance	____	X
Industrial waste material of any type?	____	X
Any wastewater treatment plant sludge or waste?	____	X
Any fly ash, bottom ash or other combustion waste products?	____	X
Any petroleum or petroleum waste products?	____	X
Any chemical waste of any type?	____	X
Any solvents, cleaning fluids or similar materials or waste?	____	X
Any liquid waste or industrial by-products?	____	X
Any polychlorinated biphenyl (PCBs) or materials containing PCBs?	____	X
Any electric equipment such as transformers, capacitors, etc.?	____	X
Any dielectric coolant or transformer oil of any type?	____	X
Any sludge of any type?	____	X
Any volatile or flammable material?	____	X
Any materials in tanks, tanker truck or drums?	____	X
Any other material of any type?	____	X

REQUEST NO. 20.

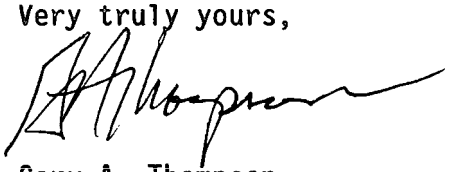
Has your company or any company or facility listed in response to questions 2 through 6 above (including any past and present employee) transported or arranged for the transportation of any of the following substances to the Site:

	Yes	No
Hazardous Waste?	_____	_____
Hazardous Substance	_____	_____
Industrial waste material of any type?	_____	_____
Any wastewater treatment plant sludge or waste?	_____	_____
Any fly ash, bottom ash or other combustion waste products?	_____	_____
Any petroleum or petroleum waste products?	_____	_____
Any chemical waste of any type?	_____	_____
Any solvents, cleaning fluids or similar materials or waste?	_____	_____
Any liquid waste or industrial by-products?	_____	_____
Any polychlorinated biphenyl (PCBs) or materials containing PCBs?	_____	_____
Any electric equipment such as transformers, capacitors, etc.?	_____	_____
Any dielectric coolant or transformer oil of any type?	_____	_____
Any sludge of any type?	_____	_____
Any volatile or flammable material?	_____	_____
Any materials in tanks, tanker truck or drums?	_____	_____
Any other material of any type?	_____	_____

RESPONSE TO REQUEST NO. 20.

Please see the answer to question 7c above, and the attached report.

Very truly yours,



Gary A. Thompson
Remediation Manager

Enclosures

cc: Mr. Rich Puvogel
Emergency and Remedial Response Division
U.S. Environmental Protection Agency, Region II
26 Federal Plaza, Room 13-100
New York, NY 10278

STATE OF TEXAS

COUNTY OF HARRIS

AFFIDAVIT

I, G. A. Thompson, a representative of Shell Oil Company, 900 Louisiana Street, Houston, Texas hereby certify that the foregoing responses of Shell Oil Company to the Request for Information Under 42 U.S.C. §9604 and 42 U.S.C. §6907 Concerning the Scientific Chemical Processing ("SCP") Superfund Site, Carlstadt, New Jersey, were prepared with the assistance and advise of counsel and of employees and former employees of Shell Oil Company and that the responses are based upon information gathered from various sources available within said corporation including a search into appropriate records and inquiry with employees who might be familiar with the matters in question. The responses provided are based on and include all information available at the time this response is made. Shell reserves the right to make any changes or additions to the responses if it appears at any time that omissions or errors have been made therein and that more accurate information is available. Subject to the limitations hereinabove set forth, the responses are true and correct to the best of my knowledge, information and belief.

Executed in Houston, Texas on this 15th day of February, 1995.

G. A. Thompson

SUBSCRIBED and sworn to before this 15th day of February, 1995.

ANITA A. CHEATHAM
Notary Public, State of Texas
My Commission Expires
JANUARY 02, 1997

Notary Public in and for
the State of Texas

Printed Name of Notary

My Certificate Expires: January 2, 1997

WCL/503301

Subsidiaries/Affiliates
of - Shell Oil Company

As Of: 01/11/1995(CMP)

	Percent Ownership	
CRI Catalyst Company	100.00	
Fractionation Research, Inc.	.00	(2)
GRAVCAP, Inc.	12.50	(1)
Heat Transfer Research, Inc.	.65	(1)
Houston Fuel Oil Terminal, Inc.	100.00	
Inland Corporation	27.00	(1)
Loop, Inc.	19.50	(1)
Lucky Chance Mining Company, Inc.	.00	(2)
Mesbic Financial Corporation of Houston	14.98	(1)
Nickerson American Plant Breeders Inc.	100.00	
Agripro Biosciences Inc.	100.00	
Oil Casualty Insurance, Ltd.		
Oil Companies Institute for Marine Pollution Comp	00.00	(2)
Oil Insurance Limited	2.63	(1)
Pecten Arabian Company	100.00	
PICO Limited	100.00	
Pecten Middle East Services Company	100.00	
Pecten Middle East Services Company Limited	100.00	
Saudi Petrochemical Company	50.00	
Triton International Services Inc.	100.00	
Pecten Chemicals Inc.	100.00	
Pecten Export Corporation Ltd.	100.00	
Pecten Trading Company	100.00	
Oil Companies Institute for Marine Pollution Comp	.00	(2)
Plumbing Claims Group, Inc.	33.40	(1)
Royal Lubricants Company Inc.	100.00	
Shell Agricultural Chemical Company	100.00	
Shell Capital Inc.	100.00	
Shell Catalysts Ventures Inc.	100.00	
CRI International, Inc.	50.00	
CRI Europe S.A.	.01	(1)
CRI Far East Trading Company Limited	51.00	
CRI Fine Chemicals Inc.	100.00	
CRI Investment Corporation	100.00	
CRI Asia Pacific Holdings Inc.	100.00	
CRI Asia Pacific Private Limited		
CRI Europe S.A.	99.99	
Catalyst Recovery Europe S.A.	99.99	
Catalyst Technology Europe S.A.	99.99	
Catalyst Recovery Europe S.A.	.01	(1)
Catalyst Technology Europe S.A.	.01	(1)
Catalyst Technology GmbH	100.00	
CRI Real Estate, Inc.	100.00	
CRI-SAM, Ltd.	80.00	
CRI Zeolites Inc.	100.00	
Catalyst Recovery of Louisiana, Inc.	100.00	

Catalyst Technology, Inc.	100.00	
Catalyst Recovery Canada Ltd.	80.00	
CRI Metal Products, Inc.	100.00	
Criterion Catalyst Company	25.00	(1)
Shell Communications, Inc.	100.00	
Shell Consolidated Energy Resources Inc.	99.50	
Columbia LNG Corporation	8.41	(1)
Shell Land & Energy Company	100.00	
Shell Finance Company	100.00	
Shell Energy Resources Inc.	100.00	
Shell Consolidated Energy Resources Inc.	0.16	
Columbia LNG Corporation	8.41	(1)
Shell Energy Company	100.00	
Pecten Brazil Exploration Company	0.00	(2)
Pecten Geophysical Company	100.00	
Pecten International Company	100.00	
Pecten Algeria Company	100.00	
Pecten Algeria Ltd.	100.00	
Pecten Angola Ltd.	99.00	
Pecten Angola Exploration Ltd.	99.00	
Pecten Argentina Company	100.00	
Pecten Portugal Company S.A.R.L.	.00	(2)
Pecten Argentina Exploration Ltd.	100.00	
Pecten Argentina Ltd.	100.00	
Pecten Ash Sham Company	100.00	
Pecten Asia Ltd.	100.00	
Pecten Bolivia Ltd.	99.00	
Pecten Brazil Exploration Company	99.99	
Pecten do Brasil Servicos de Petroleio, Ltda.	49.75	
Pecten Brazil Petroleum Company	100.00	
Pecten do Brasil Servicos de Petroleio, Ltda.	49.75	
Pecten Cameroon Company	80.00	
Pecten Congo Ltd.	100.00	
Pecten Egypt Ltd.	100.00	
Pecten Egypt Offshore East Company	100.00	
Pecten Egypt Offshore West Company	100.00	
Pecten Indonesia Misool Ltd.	99.00	
Pecten Indonesia Sebawang Ltd.	100.00	
Pecten Malaysia Company	100.00	
Pecten Malaysia Petroleum Company	100.00	
Pecten Mexico Ltd.	100.00	
Pecten Niugini Company Limited	100.00	
Pecten Orient Company	100.00	
Pecten Overseas Petroleum Company	100.00	
Pecten Portugal Company S.A.R.L.	.00	(2)
Pecten Portugal Company S.A.R.L.	99.00	
Pecten Services Company	100.00	
Pecten Somalia Company	100.00	
Pecten Suriname Company	100.00	
Pecten Suriname Ltd.	99.00	
Pecten Syria Company	100.00	
Pecten Trinidad Company	100.00	
Pecten Venezuela Company	100.00	
Pecten Victoria Company	100.00	
Pecten Vietnam Company	100.00	

Pecten Yemen Masila Company	100.00	
Pecten Yemen North Sanau Company	100.00	
Shell Consolidated Energy Resources Inc.	0.16	
Columbia LNG Corporation	8.41	(1)
Taranaki Offshore Petroleum Company	100.00	
Taranaki Offshore Petroleum Company Limited	99.00	
Shell Coal Resources Inc.	100.00	
Shell Gas Pipeline Company	100.00	
Shell Gas Services Company	100.00	
Shell Gas Trading Company	100.00	
Shell Norstar Inc.	100.00	
Shell LNG Company	100.00	
Billiton Metals Inc.	100.00	
Billiton Commodities Inc.	100.00	
Shell Minerals and Coal Company	100.00	
Shell Mining Services Inc.	100.00	
SOI Holdings Inc.	100.00	
Shell Consolidated Energy Resources Inc.	0.16	
Columbia LNG Corporation	8.41	(1)
Shell Offshore Inc.	100.00	
SOI Royalties Inc.	99.98	
Shell Frontier Oil & Gas Inc.	36.52	(1)
CalResources		(5)
Shell Frontier Oil & Gas Inc.	38.16	(1)
CalResources LLC		(5)
Shell Frontier Exploration Inc.	100.00	
Shell Frontier Services Inc.	20.00	(1)
Shell Oil & Gas Investment Limited Partnership	50.00	(3,4)
Belridge Farms	100.00	
Belridge Packing	100.00	
Shell Onshore Ventures Inc.	100.00	
CalResources LLC		(5)
Shell Oil & Gas Investment Limited Partnership	19.50	(3,4)
SOI Royalties Inc.	0.02	
Shell Western E&P Inc.	100.00	
CalResources LLC		(5)
Choctaw Pipe Line Company	100.00	
East Texas Salt Water Disposal Company	8.69	(1)
Grande Ecaille Land Company, Inc.	10.00	(1)
San Pedro Bay Pipeline Company	100.00	
Shell Cortez Pipeline Company	100.00	
Cortez Capital Corporation	50.00	
Shell Frontier Services Inc.	80.00	
Shell Michigan Pipeline Company	100.00	
Shell Oil & Gas Investment Limited Partnership	1.00	(3,4)
Shell Western Pipelines Inc.	100.00	
Van Salt Water Disposal Company	6.85	(1)
Wyoming Industrial Development Corporation	.40	(1)
Shell Investment, Inc.	100.00	
Shell LSO Property Company	88.89	
Shell Leasing Company	100.00	
Shell Motorist Club, Inc.	100.00	
Shell Pipe Line Corporation	100.00	
Butte Pipe Line Company	51.00	
Concha Chemical Pipeline Company	100.00	

Dixie Pipeline Company	5.53	(1)
Explorer Pipeline Company	26.00	(1)
Locap, Inc.	10.72	(1)
Plantation Pipe Line Company	24.04	(1)
Seashell Pipeline Company	100.00	
SPL Holdings Company	100.	
West Shore Pipe Line Company	20.00	(1)
Wolverine Pipe Line Company	4.00	(1)
Shell Polymers Ventures Inc.	100.00	
Premix/E.M.S. Inc.	50.00	
Shell Polypropylene Company	100.00	
Shell Synthetic Fuels Inc.	100.00	
Triton Diagnostics Inc.	100.00	
United Scientific Incorporation	.00	(2)

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(1) - Affiliate Company
(2) - Less than .01%
(3) - Partnership that holds shares in a corporation
(4) - Estimate
(5) - California Limited Liability Company with Members

- END OF REPORT -

DECONTAMINATION REPORT

HARVARD WAREHOUSE

KEARNY, NEW JERSEY

Submitted by:

R. C. Boffa

J. M. Connelly

J. T. Robson

OCTOBER 21, 1971

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INTRODUCTION

The following report is a compendium of occurrences during decontamination operations at Harvard Warehouse, Kearny, New Jersey. The excellent cooperation and interaction between Shell Oil Company representatives and representatives of Divisions within the Shell Oil Corporate structure was a tremendous asset. In particular, Public Affairs representatives provided the Pesticide Safety Team Network members with valuable counsel during the entire operation and were instrumental in keeping the relationship of Shell at a maximum level with the community of Kearny and the State of New Jersey.

The Department of Environmental Protection of the State of New Jersey had only been in operation a few months when this incident occurred. Despite occasional delays resulting from inexperience in handling incidents of this type, the cooperation and technical advice received from their personnel was outstanding and of the utmost assistance to us in accomplishing our objectives.

SUMMARY

SUMMARY

On August 2, a fire destroyed five buildings of the Harvard Warehouse Company in Kearny, New Jersey. Shell representatives were dispatched to the scene of the fire on the following day. Since the bulk of the material stored at the Warehouse consisted of industrial and agricultural chemicals produced by Shell Chemical Company, we participated in the clean-up activities which followed.

At a meeting called by the City Health Officer on Wednesday, August 4, the immediate problem of contamination from air pollution effects was resolved and a proposal for ultimate disposal of the debris by burial was recommended. At that time, tentative agreement was reached with those parties representing the State Department of Environmental Protection who attended the meeting. However, during the next several days it became apparent that the State would not approve any known landfill sites which had been developed and a search for a suitable area was begun. At this time the Federal Environmental Protection Agency became interested in the problem because of their concern about potential contamination of the Hackensack River in the event of a heavy rain.

That Friday evening, we were notified that an injunction would be filed by the U. S. Attorney's office demanding that we take action immediately, while the State planned a corresponding injunction insisting that nothing be done until an ultimate disposal plan could be approved. At that point, we made plans to avoid both consequences by adopting an interim solution of storing the material in closed containers at the site until the problem of ultimate disposal could be resolved. This plan met the approval of both governmental bodies and was implemented the following week.

Large steel containers suitable for holding the residue were obtained, and clean-up operations began, utilizing a local contractor to remove the building steel and begin loading rubble. During the course of the clean-up, work was slowed for a prolonged period because of the necessity of handling large amounts of inorganic acids and solvent present in one-gallon bottles in the Warehouse which had not been destroyed by the fire. The presence of a large amount of free acid throughout the waste also necessitated neutralization of the contained material with soda ash.

Approximately three weeks were required to contain all residues and thoroughly clean-up the Warehouse building slab. During that time, two consulting disposal companies prepared proposals for ultimate disposition of the debris. With the work of containerization finished, a written proposal was submitted to the State agencies concerned recommending that the residue, approximating 600 yds. of material, be transferred to sealed concrete basins located at the site of one of the consultants. This material would be held under alkaline conditions and monitored until all organophosphates had been decomposed. Because of the difficulty of decomposing the chlorinated hydrocarbons, it was agreed that this material would be segregated and ultimately incinerated. The disposal company had an incinerator with vent gas scrubbing equipment at their location and stated they were prepared to take this step.

With the assurance that Shell would retain ultimate responsibility should the contractor, for any reason, abandon the residues, the State agreed to the proposal and the material was finally removed from the Kearny site on Friday, September 17, nearly a month and one-half after the operation had begun.

INCIDENT REPORT

INCIDENT REPORT

1. DATE: August 3, 1971

2. TIME: 11:00 A.M.

3. PERSON TELEPHONING:

   Name: Mr. Robert Looney

   Company: Shell Chemical Company
   Industrial Chemicals Division

   City: Houston

   Telephone Number and Area Code: (713) 220-5549

4. INCIDENT:

   Place: Harvard Warehouse; Kearny, New Jersey

   Time: Evening of August 2, 1971

   Product Involved: VAPONA®, RABON®, CIODRIN®, PHOSDRIN®, DIELDRIN®, ENDRIN®, ALDRIN®, and a large variety of their formulations.

   Quantities: Approximately 400M - 500M pounds of insecticides and pesticides.

   Property Damage or Injuries: Five large warehouse buildings completely destroyed. Two firemen exhibiting symptoms of organophosphate poisoning. Some minor cases of dermatitis.

   Possible Hazards: Danger to public health; contamination of navigable waterways and potable water supplies.

   What Happened: Fire and explosions occurred at Harvard Warehouse completely destroying five large buildings and exposing toxic materials.

5. ACTION OF SHELL REPRESENTATIVE AFTER RECEIVING ABOVE INFORMATION: The Harvard Warehouse manager was contacted immediately. It was established that our products were involved and that there was no immediate danger of contamination to a potable water supply. The attached report details the actions of the Shell Pesticide Safety Team which was dispatched to Kearny, New Jersey, at 11:30 A.M. on August 3, 1971.

MAIN REPORT

On Tuesday, August 3, we heard on the radio that the Harvard Warehouse complex at Kearny, New Jersey, had been destroyed by fire. We attempted, unsuccessfully, to establish contact with the Warehouse and learned, subsequently, the Warehouse office had been destroyed. At 11:00 A.M., we received a call from Bob Looney in Houston who had heard about the incident from a relative employed by Harvard. At that time, he advised us of an alternate number where the Warehouse Manager, Max Kellerman, could be reached.

Mr. Kellerman advised us of the damages to the Warehouse, including the fact that there were no casualties (Appendix 1). Our immediate concern was to find out whether or not drainage from the site entered any potable water systems and we found that this presented no problem. The fire had started at 8:00 P.M. the previous evening. We had not been contacted, both because of the chaotic situation and the fact that all normal telephone contact numbers had been destroyed along with the Warehouse office. We suggested that the Public Health Service and the State Environmental Protection Agency be notified and then sent two PSTN team representatives, John Connelly and Ron Boffa, to the scene with decontamination equipment. They arrived at approximately 1:00 P.M. and found several hundred spectators at the site walking through the rubble taking pictures of the five Warehouse buildings which had been destroyed. Connelly and Boffa located the Assistant Fire Department Chief who was on the scene and warned him of the hazards and suggested people be moved out. The Chief of Police was not available and the Assistant Fire Chief was the highest ranking official present. He escorted Shell personnel to the policemen on duty to whom they explained the problem and also attempted to move people out with little success. The Chief expressed great concern that he had unknowingly been fighting a hazardous fire, although future conversations seemed to indicate that the fire department should have been well aware of the Warehouse contents and the hazards involved.

Feeling the responsibility for police action to seal off the area lay with the Warehouse people, we then went to the L. J. Kennedy Trucking Company office and contacted the owner who was also the owner of Harvard. The Warehouse Manager was there and the Shell team advised him of the hazards determining at the same time that Shell agricultural chemical products had all been stored in a single location--building #1 (Appendix 2 and 3). We again questioned whether Public Health and Environmental Protection organizations, both Federal and State, had been notified, found they had not, and then asked to see the owner. At that point, L. J. Kennedy's lawyer appeared and, again, the whole situation was reviewed. He turned the Shell representatives over to Martin Levy who apparently handled employee relations for the trucking firm. We suggested that someone immediately post police guards at both entrance streets to the Warehouse to keep people out of the area. The Police Chief was contacted and he advised that the budget did not permit posting of police guards. Upon further discussion with our representatives, Levy agreed to the hiring of off-duty policemen for this purpose.

Again, we recommended that Public Health officials be notified since we were concerned about contamination of ground waters in the area. Discussion on

this point indicated that drainage water from the area flowed through open drainage ditches about two or three miles to a pumping station where the water was pumped to the Hackensack River (Appendix 4). Levy called the Kearny Public Health Officer, Walter Nichol, who then advised contacting John Tazzi of the State Department of Environmental Protection. Tazzi referred Levy to a Mr. Winchester, also in Trenton, and he in turn thought the Environmental Protection office in Springfield should handle it. Lee Marshall was called in Springfield and he was not there so a message was left which was never answered. During this time, the Princeton Plant was contacted by the Shell Washington office regarding the advisability of notifying the Federal Environmental Protection Agency. Because of the confusion existing about the actual circumstances of the fire, it was agreed to wait on notifying Washington Environmental Protection Agency officials until the following day.

Mr. A. Ruska of Shell Public Relations had been scheduled to visit the Princeton Plant on the afternoon of August 3 following a meeting in Trenton. He was contacted prior to that visit and immediately proceeded to the scene. When he arrived, the Shell group met at the scene of the fire with the Kearny Health Officer and we suggested that he determine if any injuries to firemen had occurred. Two people exhibited some of the symptoms of organophosphate poisoning and they were taken to the local hospital for examination where they were held for about two hours and then released.

After further discussion, Mr. Nichol recommended a meeting of those concerned at 9:00 A.M. the following morning at the scene of the fire. Mr. Ruska suggested the location where a more orderly meeting could be held and Mr. Nichol agreed to have it in his office. At that point, the Warehouse Manager took the Shell representatives back to the trucking office to meet with the owner for the first time. Mr. Kennedy wanted to know "who we were, what we were doing here, and when we were getting the stuff out." He disclaimed all responsibility for the Warehouse contents saying he only owned the buildings and also refused to accept responsibility for employment of the police guard. Shell representatives, nevertheless, insisted that the police were necessary. After further discussion, Kennedy agreed to hire the police.

The Princeton Plant Manager was notified at that point that the team required additional assistance because of the highly political nature of the incident. At that time, a flood of reports had begun coming in concerning contamination of property and swimming pools in the path of the plume from the fire. The Warehouse owner was also disclaiming responsibility for this aspect, claiming it belonged to Shell and the team felt they were being asked to commit action far beyond what they believed they had the authority to do. This information was relayed to the Agricultural Division office to obtain guidance on subsequent action. Samples had been taken during this period by the Shell team to determine whether there was a pollution hazard. These were sent to the Princeton Plant for screening (Table 1).

At this point, it was agreed that the Princeton Plant Manager would go to the scene and he arrived about 9:00 P.M. that evening, in a driving rainstorm, just as the last two firemen were leaving the area. Policemen were observed to be on duty. No further action was taken other than discussion of the incident with the Shell representatives.

On Wednesday, August 4, the Shell team assembled at 9:00 A.M. at the City Health Office. The meeting was delayed for awhile in order to gather all participants and, finally, commenced about 9:40 A.M. Those attending included representatives of the Air Pollution and Water Pollution branches of the State Department of Environmental Protection; the City Health Officer and his subordinates; the Shell team now augmented by a representative from the Insurance Department, an Industrial Chemicals Division technical representative, and two representatives from Public Affairs; the Fire Chief; Chief Inspector of the Fire Department; the City Building Inspector; the Harvard Warehouse Manager and owner; and, finally, a representative from the General Adjusting Board; subsequently, representatives from the State Department of Labor and Industry and the J. T. Baker Chemical Company also appeared on the scene. The meeting began with what was essentially a dialogue between the Shell Chemical Company representatives and the Health Officer. The Health Officer was concerned about the pool contamination as well as complaints of property damage due to fallout from the fire plume which might be harmful to those who might contact it. We took the position that primary atmospheric contamination other than the normal by-products from any fire of this nature would, most likely, be from organophosphates and that hydrolysis and heat decomposition of these compounds under the conditions involved would, in our judgment, make the problem of contamination from air pollution, at worst, minimal. We were challenged on this point by the State Environmental Protection Air Pollution expert who maintained that air pollution was the most serious problem we had. Not only did he disagree with our conclusions that such contamination would be minimal, but also he felt sure that chlorinated hydrocarbons present were also widely dispersed through the area via the atmosphere. We disagreed strongly with his position on the basis that the heat necessary to disperse the chlorinated hydrocarbons would also destroy them, but that we would undertake sampling of fallout in the area with the Health Department to insure that we had the proper facts to answer the concerns of local citizens about the environment. The State Environmental Protection Water Pollution representative agreed to provide analytical help in assessing contamination. We requested this assistance not only because of the more sophisticated analytical capability of the State laboratories, but also because we felt results coming from this location would be less likely to be challenged (Table 2).

Throughout the meeting we tried to make clear that our primary interest was in protecting the citizens of New Jersey and at the same time to cooperate fully with all restrictions imposed by the State agencies represented there. We found it essential throughout the meeting to reiterate our view of the actual problems as we saw them because of the decided lack of understanding by those who had never encountered a problem of this nature before. They frequently stressed that this was the first tragedy of its kind to occur in Kearny and also repeatedly stated that it would be the last. We found considerable difficulties in enlisting the support of those technically oriented in attendance in reassuring those less knowledgeable that a total catastrophe had not taken place. In fact, it was necessary to adopt an almost dogmatic approach to convince those concerned that the problem was one which could be dealt with in a safe and rational manner. Concern at the meeting was heightened by continued reports of calls being received from local citizens questioning contamination of their pools and property. The Public Health Officer, finaly believing in avoiding unnecessary alarming of the populace,

welcomed our suggestion that pool analyses be obtained. One further problem was a question raised by the State Air Pollution technical expert as to our true objectivity regarding the statements we had made. It was necessary to vigorously insist that our primary concern was with the people rather than to merely protect our corporate interests. We readily accepted a suggestion by the Health Officer that a consultant chemist be called in by the city to give an independent opinion as to the reliability of what we had postulated. We then discussed the problem of dealing with the residues that remained on site, at which point the Air Pollution representatives left for another appointment. We proposed that the remaining toxic wastes be disposed of in a burial operation in a site not subject to intrusion by any aquifer which might lead to contamination of surrounding potable water strata. We felt that all of the rubble remaining at building #1 could adequately and safely be disposed of in this fashion. At this point, the consulting chemist arrived along with J. T. Baker representatives. We reviewed prior discussions and the proposed means of disposal, answering the questions, pointing out that we anticipated one of our biggest problems might be associated with contamination of Shell pesticides by the approximately 30 tons of inorganic acids stored in the same building by J. T. Baker (Appendix 5). Baker's response was that their products were "innocuous" and of little concern in choosing disposal methods. At that point they left to survey the area of the fire.

It should be pointed out here that of some 30 companies holding products at the Harvard Warehouse, to our knowledge, only Shell and J. T. Baker appeared at the time when decisions were involved regarding decontamination. The Fire Chief, J. Phillips, reported that a number of cases of dermatitis had occurred among the firemen fighting the fire. Since there were a sufficient number of irritants, including not only the pesticides, but the acids and a large quantity of Epichlorohydrin stored on the premises, we consulted with R. L. Maycock in Houston who, in turn, arranged for the local physician treating the firemen to discuss the problem with our consultant physician in Berkeley, Dr. Hine (Appendix 6).

Attitude at the onset of the meeting was marked by irritation, uncertainty, concern, and a general feeling of helplessness. At the end, the plan had been presented, action was being taken with regard to sampling and we felt we had given full assurance of our capabilities, not only to handle the problems, but also to cooperate with all official agencies represented. The meeting then adjourned to permit individuals who had not visited the scene to review the actual site.

At about 4:00 P.M., a meeting was called by L. J. Kennedy at his office to which insurance people, Harvard officials, J. T. Baker, and Shell representatives were invited. The problem of obtaining a disposal area was discussed and J. T. Baker recommended a waste treatment company they used for chemical disposal as a possible contact who would be knowledgeable of possible landfill sites in the vicinity. At that point, they indicated they felt there was no problem with their materials and departed. We called the Consultant, J. W. Strohn, and he agreed to come to the office that evening assuring us there would be no problem in finding a suitable site since their company had an approved location nearby acceptable for chemical wastes. We agreed to have him survey the situation and take action to begin disposal the following day.

Early Thursday morning, the State Water Pollution representative advised us that the abovementioned site was definitely not approved because of complaints in the area and that all action should be suspended until such time as an alternate site should be chosen. We requested the assistance of the Department of Environmental Protection in finding such a location and turned our attention to the other problems involved in the clean-up. Throughout this day and all subsequent days, the Houston and San Ramon Division offices were kept informed by Shell personnel on the scene as to the status of this problem. Shell Corporate management was kept informed through the Chemical Representative of the Public Affairs organization.

The Public Adjuster engaged by Harvard to handle coordination of the clean-up operation began soliciting a variety of contractors for bids on the rubble removal job. From time-to-time, these people appeared at the site and it was necessary for us to review the special problems involved in handling decontamination of building #1 with each of them.

The Federal Environmental Protection Agency, apparently notified of the situation through our Washington office, appeared at the fire scene on Thursday afternoon and collected samples. The City Health Officer continued to be deluged with telephone calls from pool owners in the vicinity of the fire who had apparently become alarmed by the presence of particles visible on the surface of the water. Analyses of the samples taken the preceding day indicated that only trace, if any, contamination with pesticides had occurred (Table 2). We were reasonably successful in assuring the Health Officer that no real problem existed. However, we found that apparently the North Arlington Health Officer (a community neighboring Kearny and directly in the path of the smoke plume) had written letters to the pool owners in his area advising them to drain the contents immediately. This precipitate action without consulting with anyone succeeded in alarming all those who heard about it and, of course, this concern eventually spread back to the Kearny area. During the two days following the fire, the weather was cloudy and overcast and, fortunately, rather poor weather for swimming. The heavy rain occurring the night following the fire was, undoubtedly, helpful in diluting the contents of the storm ditches in the area since samples taken of the immediate vicinity on that Wednesday showed only minor pesticide contamination (Table 1). Car damage reports also began to be reported in large numbers over the entire area in the path of the plume. A large volume of calls coming in to L. J. Kennedy were handled by advising the complainants to contact their own insurance companies.

Friday morning, August 6, we were advised by the State Environmental Protection Representative, Mr. Lynch, that our plan to dispose of our wastes in an appropriate landfill would not be permitted since no landfill in the State of New Jersey could be approved for this purpose. This was all the information he had other than that we were instructed not to move any material until a written plan had been submitted which would meet with the approval of the State. Shortly after receiving this information, we were advised by Houston that reports had been received that a Federal court was preparing to file an injunction against Shell and Harvard, the contents of which were not at that time known. We were also advised at that time on what statements to give should we be approached by the Press on this subject (Appendix 7).

We received a call from the Federal EPA requesting a summary of the situation at Kearny. We gave them a brief synopsis of what was involved and where we stood. At 4:00 that afternoon, we were contacted by the U. S. Attorney's office in Newark, New Jersey. The Assistant U. S. Attorney, Mr. Hill, asked a number of questions about the situation at Kearny and seemed to be satisfied with the answers. At 5:15 that evening, Mr. Hill again telephoned and stated that because he felt we were making no progress in removing the rubble from the location, he was preparing to file an injunction in U. S. District Court demanding that we move immediately to relocate the rubble from the Kearny site. Fortunately, at the time he called, the State EPA Representative was in the office and we asked him to discuss the State's concerns which were preventing us from proceeding with a removal operation. Mr. Lynch told Mr. Hill that the State was prepared to file for an injunction in State court to prevent us from conducting any operations until they had approved of our disposal plans.

Following this discussion, we again talked to Mr. Hill who stated that the primary concern of the Federal EPA was that we were unnecessarily exposing the meadowlands and the Hackensack River to pollution and that they intended to file the injunction unless we showed some evidence that we were going to remove the hazard. At that point, we assured Mr. Hill that there would be activity on the site Monday morning, that we would remove the rubble, storing it in containers, and that the injunction was unnecessary and they could be sure that Shell would cooperate. Mr. Hill agreed not to file for the injunction based on our assurance that work would begin on Monday, but he requested that he receive a telegram from the management of Harvard Warehouse specifically stating that we would proceed at that time. The Warehouse owner agreed to send such a wire, but because we felt there was a chance he might not follow through, we prepared our own wire which was sent that weekend (Appendix 8).

We then contacted our chemical consultant to determine if any possible work could begin on Saturday. He indicated some pessimism about even obtaining people by the following Monday, but agreed to have labor on the scene the next Monday if we could provide drums into which we could begin depositing the rubble. The following morning we arranged for delivery of drums utilizing the services of the Warehouse Manager to obtain this commodity. In this particular area of New Jersey, it was quite apparent that very little work was carried out on weekends and after insuring drum delivery we left the site.

On Monday, August 9, we returned to the Kearny site to begin initial clean-up. A chemical consultant appeared with two laborers about 10:00 A.M. It was quite apparent at that time that hand operations loading 55-gallon open-head drums was a total and complete waste of time. Therefore, we began removing debris from the building support beams so that they could be cut from the foundation permitting removal of the building steel which would interfere with subsequent product removal operations (Appendix 9). In the meantime, we had the Princeton Plant initiate efforts to obtain suitable containers that could be used for the massive product storage problem that faced us. Our initial estimates of container capacity required fell in the neighborhood of

400 to 500 cubic yds. The building removal contractor came to the site but was unable to commence operations because of objections by the Warehouse owner regarding disposal of the building steel. It was not until late that afternoon we were able to determine that he objected to storage of the steel at the site because this meant double handling and an extra charge to him. When we agreed to pick up the extra charges involved in double handling, he reluctantly consented to relocation of the steel.

The Federal EPA Representative, Mr. Elliot, arrived with an Assistant, Mr. John Nichol, saw signs of activity, discussed the entire situation with us, and finally left, promising to return the following day. In the meantime, following unsuccessful efforts by us to obtain containers, our chemical consultant located a refuse contractor with available containers who agreed to bring them to the site on the following day. He assured us that approximately 14 containers of some 30 yds. capacity would be available for our project. That evening, in a meeting between the Shell representatives and the chemical consultant, we decided to totally abandon the role of advisors on the project and assume full control of the removal operation. It was quite apparent at that time that had we not done this the job would have been delayed even more. The resources of the Princeton Plant were utilized fully in handling accumulation of expenses, issuing of purchase orders, obtaining of necessary chemicals, etc., to permit operations to proceed.

On Tuesday, August 10, the actual job of clearing the site commenced. Initial burning of the column supports was completed and the first containers arrived about noon. Laborers in protective clothing began removing pesticide bottles which had not been destroyed in the fire. Ultimately, about 300 to 400 gallons of DAVAP® and VAPONITE® were recovered and stored in the open-head drums obtained previously. Because of destruction in most cases of the label, damage to the caps with an indeterminate amount of contamination, it appeared that any attempt to salvage materials from the entire site for reuse would be unfeasible and, as it subsequently turned out, this was the case. We again spent some time with the Federal inspector who expressed satisfaction with our efforts and confirmed that he would so notify the U. S. District Attorney's office. He also advised that he was the one who had been responsible for the actions of the Federal EPA and the Attorney's office on the previous Friday. It was somewhat unfortunate that he had not expressed his sentiments to any of our representatives on the preceding Thursday when he visited the site, otherwise we might have been able to reach an agreement without the situation becoming one of crisis proportions.

Our initial efforts in removing rubble were to concentrate on those areas accessible with a front-end loader with the first container being loaded with a great number of KO-PEST® strip whose foil pouches were still intact despite the severity of the fire. Our plan was to remove all pesticides as quickly as possible leaving the J. T. Baker acid removal operation until the very last. Prior to filling each of our containers, we lined the bottom with about 1,000 lbs. of soda ash, mixing in additional soda ash as the containers were filled. The purpose of this action was primarily to protect the containers from damage due to the acid which had been washed throughout the site and at the same time maintain an alkaline condition in the container which would assist in decomposition of the organophosphates present. We continued

with removal of the pesticides isolating that portion of the Warehouse which had contained chlorinated hydrocarbons and kept these materials in separate containers (Appendix 9). The operation continued until Thursday afternoon under hot and dry weather, but on Thursday a thunderstorm occurred which led to a great deal of run-off from the area to the drainage ditches. We were able to minimize, to some extent, run-off from the site by temporarily damming the catch basins, but the volume of water became so great that it had to be released. At this point, we began adding soda ash in large quantities to the run-off to insure both neutralization of the acid and decomposition of the organophosphates. While this operation was going on, we received a call from the State requesting that we add soda ash and we were able to assure them that this had already been done. On this day and throughout the succeeding days, we continued to accumulate samples of run-off waters to determine extent of contamination (Table 2).

Throughout the operation we had been troubled with acid fumes which continually vaporized from that section of the building where the greatest proportion of broken acid bottles remained. By Thursday, the fumes had gotten progressively worse and it was decided to clear this portion of the debris to make on-site conditions more tenable. A tank wagon of 18%/w caustic was obtained late Thursday, following the rain, by the chemical consultant. Utilizing a bulldozer and a front-end loader, a large pile of acid bottles, intermixed with NO-PEST strips, were pushed off the slab and the entire mound thoroughly saturated with the liquid caustic. During this time, the effluent was monitored frequently to insure that the ditches were maintained in an alkaline condition. This reduced our fume problem in the area to a minimum and we were able to resume pesticide removal as originally planned.

On Friday, August 13, we encountered a large number of still intact bottles of acetone in the middle of the debris as well as ammonium hydroxide and hydrochloric acid, also in one-gallon bottles. We also encountered containers of CIOVAP® and PHOSDRIN® formulations. Under the supervision of the chemical consultant, the efforts of our laborers were devoted to segregation of intact bottles and placing them in 55-gallon open-head drums lined with a plastic bag. Abundant quantities of soda ash were placed in the drums which were isolated awaiting ultimate disposal.

In all, approximately 1,100 bottles of acetone were removed and this material subsequently poured into 55-gallon solvent drums for ultimate disposal. It was decided to dispose of the acid by neutralization in 55-gallon open-head drums lined with PVC liners, and more caustic was brought in for this purpose on Saturday. The contractor continued to fill containers with pesticide debris while the labor crew worked on bottle removal. As debris removal proceeded, it became apparent that our initial estimate of container requirements would be low. On Friday of that week, we were approached by another contractor who offered the use of four 55-yd. trucks at essentially the same price as the roll-off containers we had been using, and we agreed to include these trucks in our container inventory. While work proceeded toward site clearing, it became increasingly evident from our daily contacts with State representatives that we faced a difficult problem in final disposal.

Anticipating the need for knowledgeable assistance in the area of effluent disposal, we called in Rollins-Purle for advice and recommendations. Their interest in accepting the job declined considerably when they found we already had containers and had contracted with the container owner for ultimate movement since these were the only terms under which these containers could be obtained; but when we agreed to pay their engineering costs, they agreed to develop a firm proposal. Also this week, our East Coast Regional Representative - Public Affairs, W. E. Kress, was able to contact the head of the Division of Environmental Quality of the Department of Environmental Protection, Mr. Grant Walton, in whose hands rested the ultimate decision for final disposal. He was able to ascertain that while any existing landfill was totally unsuitable, the State would consider the proposal for burial in an appropriate site isolated from surrounding ground water which could be monitored over a period of years. The problem of finding such a site was significant. The complications involved in insuring integrity of the area and necessity for monitoring over a number of years made this alternative one we would investigate only as a last resort. We looked to Rollins-Purle to provide a satisfactory alternative to our involvement in such a study.

Work continued on site clearing throughout the following week with continuing delays due to the necessity of final clean-up of the unbroken containers of acid and ammonia plus some difficulty in obtaining delivery of the final four of the original 14 containers promised by the refuse contractor. In addition to continued interest by the State and Federal Environmental Protection people, we also received numerous visits by State Health Department representatives involved in the U. S. Public Health Service Pesticide Project. They were interested not only in the operations being conducted at the site but also any potential problems in the community due to exposure from pesticides vaporized during the fire (Appendix II). Other than the two firemen originally hospitalized with suspicion of phosphate poisoning and approximately 20 firemen suffering from dermatitis, no other incidents were reported.

Midway through the week of August 16, the essential work of rubble removal was completed. At that time, while the full crew was still present at the site, we arranged through the services of a technician at the Princeton Plant to give field blood tests for cholinesterase depression. All tests were negative. This information was passed on to Health Department Pesticide Project officials. The balance of the week was spent in general clean-up of the area and final decontamination of the Warehouse slab. The approximately 30 cubic yds. of material had not been containerized because all available containers had been filled. This material was judged to be primarily non-toxic in origin and it was decided to leave it on the site until such time as final disposal began. The open-head drums containing pesticide bottles were stored inside a Warehouse shed remaining intact in the area. All but four containers were moved back to the nearby field out of the way of area traffic. Tarpaulins were obtained for 11 containers and strapped down to provide some protection from the rain. All containers exhibited some signs of leakage from the outlet doors. Container construction was such that for unloading the entire back-end opened up and we found it virtually impossible to seal off the door so that no leakage whatsoever would take place. This caused some concern among city

officials during the period of storage, awaiting final disposal, since there was an almost continuous dripping from each container. We obtained composite samples from the containers to determine the extent of contamination. As suspected, contamination was minimal due to basic nature of the debris (Table 4).

During the last week of the clean-up operation, we were approached at the site by another disposal company, Scientific Chemical Processing, who indicated they had received word of our problem from a member of the Solid Waste Disposal Department of the State. Their processing site was located only a few miles from the Kearny area and while they initially offered little in the way of suggestions, we encouraged them to consider making a proposal as an alternative to Rollins-Purle. Both proposals were received at the Princeton Plant during the week following final decontamination and are shown in Appendix 12 and 13. We reviewed both and concluded that the proposal by Scientific Chemical Processing represented a far more practical alternative in solving our problem if we could convince the State that their solution was in order. The Rollins-Purle proposal was rejected, first of all on the basis that they had not yet solved the problem of locating the proper site; secondly, that their proposed segregation of the NO-PEST content of the rubble might have represented several more weeks in the field for the Shell group with total costs inevitably much higher than the flat fee proposed by Scientific Chemical Processing. With the information from Scientific Chemical Processing plus our own observations of the problem, we proposed to meet with the State to outline the plan at the earliest possible date so that container movement could be expedited.

Prior to this meeting, the State (on August 25, 1971) promulgated an emergency rule on containment and disposal of pesticides which, undoubtedly, was a result of the Kearny incident (Appendix 14). We were not made aware of this ruling until several weeks later when Mr. A. Ruska of Public Relations brought it to our attention.

This meeting was held on Thursday, August 26. In attendance were the Director of the Division of Environmental Quality; the Deputy Attorney General of the State of New Jersey; representatives from the Departments of Solid Waste Management, Air Pollution Control, Water Pollution Control, and the Pesticide Project in the Department of Health; Princeton Plant representatives; and the East Coast Regional Representative - Public Affairs. In essence, there seemed to be general agreement regarding the proposal, although the Director requested that the proposed plan be submitted in writing for review by all participants as well as other State agencies concerned, including the Department of Transportation. The letter was submitted on Friday, August 27, and on Friday, September 3, we received confirmation in writing that our plan was accepted (Appendix 15 and 16). We immediately arranged with the refuse contractor to begin movement of the containers on the Tuesday following Labor Day and advised Scientific Chemical Processing that we would give them a purchase order accepting their disposal terms.

In essence, their proposal involved holding pesticide building rubble at their site under conditions which would cause degradation of the toxic components present at which time, upon approval by the State, they would dispose

of the material probably in a landfill. There was strong disagreement, however, that this would be a suitable method for decomposing chlorinated hydrocarbon pesticides present in the material. We agreed to maintain this material separately for special handling should prolonged storage prove ineffective in reducing toxicity. Since Scientific Chemical Processing has a scrubbed incinerator at their site, the State was agreeable if we would consider the possibility of ultimate incineration should prolonged storage be inadequate.

We made frequent visits to the site during the weeks of August 23 and August 30. During this time we monitored the site for anything unusual, checked the pH of the drainage ditches and assessed the condition of the containers. We also continued to touch base with city officials and kept them current on our progress. We also continued to keep in contact with Scientific Chemical Processing to insure that they would be ready to receive our materials once we were given acceptance of our plan by the State.

On Tuesday, September 7, we received a supplement to the original acceptance letter requesting that the State be permitted to inspect the disposal facilities prior to removal of the material to Scientific Chemical Processing (Appendix 7). This inspection was arranged that afternoon with a member of the Solid Waste Disposal department and while the actual physical construction of the basins had not even begun, he agreed with the plans by Scientific Chemical Processing and agreed the movement could begin after he had discussed the results of his inspection with the Director of Environmental Quality.

We returned to the site on September 7 and began making preparations for movement of the materials in anticipation of the State's approval. Scientific Chemical Processing and industrial refuse removal specialists were advised that movement of the materials was imminent and agreement was reached that they would be ready at anytime to handle the materials. In the interim, we attempted to seal the containers with graphite packing wedged around the unloading doors to prevent liquid seepage.

A final meeting was held on Wednesday, September 8, at the State offices among State officials and on that Wednesday afternoon we were advised we could begin transporting containers the following day, but that the State wished to send a representative to follow the movement. The first container moved to the site at 10:00 A.M. Thursday morning, September 9, with an inspector from the Solid Waste Management program, as well as the Chief Inspector from the Bureau of Radioactive Protection. Both individuals accompanied movement of the first containers and then agreed there was no hazard represented by the move and that our efforts to be sure the material arrived at the proper location would be acceptable.

Movement of the materials continued through Saturday of that week. Shell representatives accompanied the movement of each container from the Warehouse site to Scientific Chemical Processing. As each load arrived, it was dumped on a concrete pad, and each emptied container was washed down with large quantities of water. The wash water was contained in a lagoon (containing a lime slurry) which minimized contamination. The materials were arranged

on the pad with a front-end loader so that a concrete block wall could be constructed around the debris. Two areas of this type were required due to the volume of materials involved. We continued to move the containers during the week of September 13 but experienced considerable delays in our progress due to lack of transportation equipment. Other business commitments on the part of the removal contractors undoubtedly prevented them from giving the rapid service we anticipated. The last of the containers was moved on Friday, September 17, along with 26 - 55-gallon drums of CIOVAP, VAPONITE, and PHOSDRIN E. C. which had previously been contained. The approximate 40 yds. of chlorinated hydrocarbon debris was isolated on a concrete pad at Scientific Chemical Processing as per our approved plan.

We concluded our activity at Harvard Warehouse by observing that the structural steel from building #1, which had previously been isolated, had been moved to a dumping site. This activity had earlier been approved by the State upon our assurance that contamination of the steel was of little, if any, significance. We also advised city officials that decontamination had been completed. Needless to say, this information was welcomed. By this time, clean-up of the remaining buildings was well under way. At one point while moving debris from the east end of buildings #3 and 4, several drums containing liquid were punctured. The vapors emitting from the spilled liquids caused personnel in the area to become nauseous. Our inspection of the situation indicated the possibility of Epichlorohydrin being exposed and the Industrial Chemicals Division in Houston was immediately notified. They dispatched personnel to the scene who handled the problem.

The Director of Solid Waste Management, State of New Jersey, was in frequent attendance during this time and indicated his approval of the handling and containment of the materials. Scientific Chemical Processing is currently in the process of constructing the concrete block walls around the debris. Once completed, they plan to soak the materials with a caustic solution. Once the solution is introduced they will, under the direction of Shell representatives, pour the liquid Insecticides (CIOVAP, VAPONITE, and PHOSDRIN E. C.) into the caustic solution. Scientific Chemical Processing and the State agencies involved plan to monitor the site and to generate analytical data to indicate when toxicity of the materials no longer presents a problem. At this point in time, the State will then be prepared, hopefully, to render a decision for ultimate disposal of these materials. Shell, Princeton, will also continue to monitor the situation to insure that all activity is being conducted within the guidelines of the approved disposal plan.

CONCLUSIONS

CONCLUSIONS:

1. The Kearny Fire Department apparently were not knowledgeable of the materials with which they were dealing. This endangered not only personnel fighting the fire but also the public who participated as spectators. It is recommended that at every warehouse where our pesticide products are stored, the warehouse owner and local officials should be fully advised as to how to handle these products under the various emergency conditions which could arise.

2. Copies of decontamination procedures, appropriate telephone numbers, and other emergency precautions should be maintained in at least two locations, by each warehouse, preferably with one location not at the immediate site to provide instructions in the event of a problem.

3. Information concerning the Pesticide Safety Team Network organization should be furnished to appropriate city officials at any location where we warehouse materials.

4. One of our principal problems in handling this clean-up resulted from intermixing of pesticides and other chemicals within the Warehouse. If possible, pesticides should be stored in a single area and only with materials which would not produce an increase in the problem during clean-up. For example, METHOL was stored in the Warehouse but presented no difficulties. Acid stored there increased our problem manyfold. Had we had pesticides stored in all five buildings, we might still be decontaminating.

5. While it may be impossible to achieve this degree of control due to the chaos created when a large fire occurs, every effort should be made to keep pesticide areas from burning. If they do catch fire, it is better to allow total destruction of the contents rather than attempt to put out the fire with substantial quantities of toxic material still present. This presumes, of course, that atmospheric contamination can be minimized by using fire water in a fog to scrub the plume from the fire.

6. The guiding principle of the PSTN operation is that members are to act in an advisory capacity only. The intent, of course, is to minimize our liability should operations result in unfortunate consequences. It was quite apparent in this instance that had this principle been followed, Shell and the industry would have suffered serious damage from a public relations point of view because the objectives of a warehouse owner with limited resources are aimed at minimizing rather than maximizing fast action. It may frequently be necessary that Shell representatives act outside a strictly advisory role and, as in this case, commit company resources far in excess of that normally expected. This implies that when necessary the resources of a nearby

operating location be utilized rapidly on the best judgment of those at the scene following close communication and consultation with appropriate senior management.

7. In this instance, an information network to communicate status to all Shell personnel concerned was established by Houston at the outset and it proved invaluable in minimizing the number of contacts by those involved at the scene of the fire. While this was the first major disaster the Pesticide Team members had encountered, it is possible that similar situations could arise in the future. Pesticide Team members as well as other responsible parties should be fully aware of the potential resources within the Company for coping with such emergencies. This incident will be used as a training exercise for those Princeton personnel involved in the Pesticide Team activity.

8. In any incident of this type, there will be a significant degree of non-cooperation from those unconcerned with the consequences to Shell. A major effort is required to establish such cooperation but it should be recognized that action must proceed regardless of whether it is carried out on a cooperative basis or not.

Burns International Security Services, Inc.

235 E. 42nd Street
New York, N. Y. 10017
212-867-2700

September 22, 1971

Mr. James F. King
Shell Oil Company
50 West 50th Street
New York, New York

Dear Mr. King:

In keeping with our telephone conversation of September 16, 1971, enclosed please find the revised report as submitted by our Special Investigator, Edward W. Mays.

Yours very truly,

C. Richard Samson
Manager of Investigations

CRS:rk
Encl.

Orig. to J. W. Bodenheimer, Mgr.
ICD Sup. - Dist.

Copy to W. C. Hajek
Insurance Dept.

J. M. Connelly
Princeton Plant

EDWARD W. MAYS
Investigations
418 Prince Frederick Street
King of Prussia, Penna. 19406
Telephone: 337-1262

Case No. 12243 Date August 25, 1971 Report No. 1 Operator No. 1

CONFIDENTIAL REPORT

Pursuant to your request for an investigation into the circumstances of subject fire, the following information was developed:

ASSURED OWNER: Harvard Storage and Warehousing Co., Inc.
342 Schuyler Avenue
Kearny, New Jersey

ASSURED OCCUPANT: Agricultural Division of Shell Chemical Company.
San Ramon, California.

and

Industrial Chemicals Division of
Shell Chemical Company
One Shell Plaza
Houston, Texas, et al

LOCATION: 600 Belleville Turnpike
Kearny, Hudson County,
New Jersey

DATE: August 2, 1971 (Monday)

TIME: 8:41 P.M.

SUMMARY: This fire when discovered in Building #5, equipped with a dry automatic sprinkler system, was beginning to show flames to the outside of the building. Within a very short period of time, possibly ten minutes by reliable accounts, the fire completely involved Building #5, and spread to an adjacent building and was well on its way in creating a a conflagration, which burned completely out of control for some time, resulting in the complete destruction of five buildings of a building complex.

The investigation failed to establish the cause of this fire, but did establish the presence and storage of various chemicals in Building #5 and adjacent buildings, which could be characterized as extremely hazardous and very capable in the propagation of fire.

The purpose of the investigation was to establish the cause of the fire if possible, and ascertain whether or not the sprinkler system operated during the fire.

BODY OF REPORT:

The building in which the fire was originally discovered was a one story, block and masonry structure, with corrugated metal roof, approximately 80' X 40' in dimensions. It was located at the most extreme East end of the eight building complex, just South of the intersection of List and Lowy Roads.

The remaining buildings which made up the complex, which eventually became involved in the fire, are identified in reverse as #4 and #3, #2, office and #1, were of various sizes and shapes and extended westward in an almost direct line to the intersection of Lowry Road and Vickens Court.

The storage in Building #5 was identified by the General Manager of the warehouse, MAX KELLERMAN, who provided the writer with a diagram, showing the storage and location, a copy of which is attached to this report.

The involved property is owned by the Harvard Storage and Warehousing Co., Inc., P.O.Box 553, Kearny, New Jersey. The Corporation is owned by L.J. KENNEDY. and MICHAEL MEROLA, both available at 342 Schuyler Avenue, Kearny, New Jersey. It should be noted that L.J.KENNEDY operates a trucking company from this address, also.

The involved property was occupied by the Agricultural Division of the Shell Chemical Company, San Ramon, California and Industrial Chemicals Division of the Shell Chemical Company, One Shell Plaza, Houston, Texas. There were also other contract occupants of the buildings involved.

This fire occured on Monday,August 2, 1971, at 8:41 P.M. It was reported by BERNARD DURAnd, 46 Hawthorn Drive, New Providence, New Jersey. The Kearny Fire Department responded to the alarm under the direction of JAMES FITZSIMMONS, Assistant Fire

Chief, who was later joined by the Fire Chief, JOSEPH PHILLIPS. Through the efforts of the Kearny Fire Co., aided by neighboring fire companies, they were able to confine the fire to the Harvard complex, and are reported to have had the fire under control in four hours approximately.

On August 10th. 1971, the writer met with JAMES F. KING, Corporate Security Representative of the Shell Oil Company, 50 West 50th. Street, New York, N.Y., at the fire scene. His instructions were for the writer to conduct an investigation of this fire in an effort to establish the cause if possible; whether or not the sprinkler system operated at the time of the fire, and any other pertinent information.

Following a preliminary examination of the fire scene, the writer met with LOUIS SYLVESTER, Chief Inspector of the Kearny Fire Department, and Joseph PHILLIPS, the Fire Chief, at their headquarter's. Considerable conversation was had with the authorities, with little results as to ascertaining facts concerning the fire. One got the impression from the beginning that the authorities were to be very careful in what they said to anyone concerning this fire. There was some discussion concerning the dry automatic sprinkler system. Several suggestions were made by the writer to establish whether the system operated at the time of the fire. Following each suggestion, the writer was advised by the Inspector or the Fire Chief, that this was being done. At no time did they say that it had been done. It was always, it was being done. Because of this block, there was just no progress made at all.

In discussing the Town Ordinances with respect to the fire code, and storage of such dangerous materials, the Fire Chief advised that unrestricted warehousing was permitted in this particular area. There was no mention as to whether a permit was required to store explosives.

Following the first interview with the authorities, the writer returned to the fire scene and made another examination of the premises, Evidence of the conflagration was everywhere. Portions of metal drums were observed all over the area, at various distances, some as far as 300' from where they had been stored. Hundreds and hundreds of various sized drums were ruptured and torn in all fashions and descriptions. Ridge iron from corrugated metal was strewn all over the area. A tractor and trailer parked along the North wall of Building # 3 & 4, was completely destroyed. Walls literally blown out by explosions within the structures. Evidence of the powerful force generated was a 30" steel beam twisted

like a pretzel, laying 114' West of the East end of Building #3 & #4. Drums were observed full of holes, which indicated the penetration of flying fragments of steel, such as one may realize from a bomb. The destruction was complete from one end of the complex to the other, of the buildings involved.

A closer examination of Building #5 established that the North wall fell in, except for a small portion of about 15' of the wall extending from the East end, which blew outwards. The South wall also fell in. The rear or East wall pushed out. The West wall also pushed out. A trailer that had been parked agains't the rear or East wall, was completely destroyed. Two large cylinders of liquid petroleum gas were found in the trailer remains. One tank was ruptured at the crown of the tank. In examining the inside area of Building #5, at the South-East corner, two pieces of the steel structure in this area, were cut in two as though by a cutting torch, indicating a concentration of extreme heat from the fire. There was also other evidence of extensive destruction in this area. All the drums observed in this area were either ruptured or blown apart. But no evidence was found helpful in determining the cause of the fire.

An examination of the partially destroyed room along the North wall of Building #3 & #4, which housed the automatic sprinkler dry valve and related essential parts and connections, established that this was a 6" Globe Dry Pipe Valve, Model F 175, Dated 1-63, Number F-1102. This system was fed by a water main entering the room through the West wall. There was a gate valve on the main after it entered the building. This valve was in an open position. Following the gate valve was the meter, then the riser which was equipped with another gate valve, just below the dry valve chamber. This particular gate valve was in a closed position at the time it was first examined by the writer. And from the appearance at that time, from deposits of soot, etc., it was evident that this valve was closed at the time of the fire. This equipment was examined on several occasions, after which time the writer was completely convinced that this valve was closed at the time of the fire. A siamese connection was located on the outside North wall of the sprinkler room, which made it possible to supplement the water supply to the sprinkler system, with the use of a pumper (fire engine) if necessary. The examination also established that there was a water gong on the East side of this room, connected to the system, which obviously did not work the night of the fire.

It should be noted that the writer brought this to the attention of the authorities concerning the closed gate valve, and suggested that they employ the services of a sprinkler system mechanic, and have the plate removed

from the face of the housing containing the dry valve, for the purpose of examining the valve to ascertain whether it was in an open or closed position. Even though the authorities continued to insist that they were checking out the sprinkler system through the water company, they had not checked the dry valve as late as August 12th. 1971, in the afternoon, and obviously had no intentions of doing so at the time.

Continued liaison with the authorities failed to be helpful in establishing the cause ofthis fire, or ascertaining whether the dry valve was in an open or closed position at the time of the fire.

The following persons were interviewed and their statements in substance are as follows:

CHUCK BURLEY, 298 Union Street, Jersey, N.J., employed by Parcel Delivery Service, 600 Belleville Pike, Kearny, N.J., stated that on August 2nd. 1971, at about 10 minutes of 8 P.M. his men took a break to go out and eat. They returned at 8:30 P.M. and went into the building and started to work. JIMMY WALL, afternoon switcher (jockey) blew his horn to warn the men that there was a fire. He got BUSTER DURAND to call in the alarm to the fire department, between 8:40 and 8:45 P.M. It was about 5 to 10 minutes before the Chief's car arrived at the fire scene (Assistant Chief FITZSIMMONS). He stopped at the curb on List Road near the building that was on fire. About 5 or 10 minutes after the Chief arrived, one truck arrived. Came in the same way on List Road and parked at the curb. MR. BURLEY explained that after BUSTER came in and told them to move their cars, he went out and could see flames in the corner of the building, inside. Flames were coming out between the roof and wall level, at the North-East corner of the building. He explained that when he first saw the fire it didn't look like much of a fire. But after the Fire Chief arrived, it relly started to burn and the flames were getting higher and higher. Also the building seemed to still be intact when the fire truck arrived. But when they started to put water on the fire, down through the roof, the flames went through to the adjoining building and spread like wild fire. Continuing he stated that sometime later he was standing on pallets, approximately 20' inside their door that was exposed to the fire, when the first explosion occurred. The explosion blew him off the pallets at that distance. It was at this point that he ran outside to get his car, but was unable to do so as the heat was too intense. Concluding he advised that they had walked up the hill to Eagans Restaurant, on the Belleville Pike. And on their way back one of the explosions rocked the entire hill. He could add nothing more helpful to the investigation.

JAMES WALL, 205 Fleet Avenue, Edison, N.J., explained that he was the switcher they referred to, and was pulling a rig out of the yard when he observed smoke coming up over the building from the South-East corner. Then as he was going through the gate, he saw flames at the North-East corner of the building (#5), coming out of the window on the North side and through between the wall and the roof. At this point he could also hear the drums inside popping. Continuing he advised that he is pretty sure that the second building (#3 & #4) started to burn before the firemen got water on the fire, but he could not be absolutely sure. He further explained that when the second building became involved, the fire spread very rapidly through it. It was possibly 5 to 7 minutes before the fire spread from the end building where the fire started, to the second building (#3 & #4). He also stated that there was an explosion in the first building, but that it was not near as powerful as the one in the second building when the roof blew off. He also stated that there was a breeze from the East which seemed to help spread the fire through and along the complex of buildings. Concluding he said that during the fire, not only was there burning debris flying all over the area, but also pieces of steel from the explosions.

JAMES FITZSIMMONS, Assistant Fire Chief of the Kearny Fire Department explained that he was on duty the night of the fire beginning his tour of duty at 6:00 P.M. When the alarm came in he was at Station #3 which is located at 109 Midland Avenue, Kearny, N. J. He explained that Engine #3, and #1 and Truck #1 answered the first alarm. He arrived on the scene in approximately one and a half minutes with the apparatus following approximately one half to one minute later. He explained that as he came down Schuyler Avenue, he could see flames coming through the roof of one of the buildings. He radioed in that they had a working fire. He continued on and came down List Road at which time he could see flames all along the north side of Building #5 around the roof level and through the roof and going toward the building west of it. At this point Chief FITZSIMMONS explained that he was positive that the trailer which was parked at the east end of Building #5 was not involved in fire at this time. He explained that he layed his first line to the hydrant on List Road near the film storage. He took the line right up to the building and then Engine #3 pulled up along the front of the building to lay the line on Lowy Road. He further explained that he had anticipated getting the hydrant near the parcel delivery service door but couldn't. They had to get down List Road and hook on to the hydrant near Jacet Road. In the meantime Engine #1 came around and hooked up and was in front of Building #2

when it blew #3 & #4. Chief FITZSIMMONS thought at first it was Building #5, but later learned that it was #3 & #4. At this point he explained that he pulled back his crew and equipment and cleared the street, because of the flying debris and steel. From this point on his efforts were concentrated on protecting exposures.

Upon being questioned as to whether or not he had observed any evidence that the sprinkler system had operated at the time of the fire, he explained that he had not. Concluding Chief FITZSIMMONS advised that there had been a notice on the board at Station #3 which indicated that the sprinkler system in the Harvard complex was out of order. He could add nothing more helpful to the investigation.

It should be noted that LOUIS SYLVESTER, Chief Inspector, was questioned concerning this notice, He explained that sometimes they forget to call back when the system is placed back in order, and possibly this is what happened. However, he would no pursue this avenue of inquiry.

MAX KELLERMAN, General Manager of the warehouse, was interviewed at a new location, 412 Harrison Avenue, Kearny, New Jersey. He advised that no one had been in Building #5 on August 2nd. 1971, and nothing had been taken out or shipped in. The last time anyone was in the building according to Mr. KELLERMAN was on July 30th. 1971. From memory MR. KELLERMAN provided the writer with a diagram of the building and the location of it's identified contents, a copy of which will be attached to this report.

Photographs taken by A. BECK, 766 Chestnut Street, Kearny, N.J., and obtained by the writer, depicts the enormousness of this holocaust. Copies of these photos are attached to this report.

This investigation failed to establish the cause of this fire. However, limited information was developed in the course of the inquiry which indicates that the sprinkler system was not operative at the time of the fire.

As to whether or not the sprinkler system would have been effective in extinguishing this fire, - had it been operative at the time - would have depended entirely on what was involved. A normal Class A fire, even one which included a moderate quanity of flammable liquid or chemicals, could possibly have been extinguished or at least controlled considerably by a sprinkler system. However, a fire involving hazardous chemicals, where water could not be considered an extinguishing agent, would not have been controlled by a sprinkler system.

SHELL OIL COMPANY

WFK

DATE AUGUST 12, 1971

TO HEAD OFFICE - GENERAL MANAGER - ENVIRONMENTAL AND SAFETY AFFAIRS

FROM MANAGER - ENVIRONMENTAL CONSERVATION DEPARTMENT - PUBLIC AFFAIRS - HEAD OFFICE

SUBJECT KEARNY FIRE

Further to Mr. R. F. Dunphy's August 11, 1971, memorandum on this subject, the following is Walt Kress's report of this date on the status of debris disposal arrangements.

In conjunction with Princeton personnel, the debris problem has been defined as consisting of:

1. Structural steel materials.

2. Drums and Cans.

3. Rubble.

These have now been segregated into different areas, and the drums, cans, and rubble are in the process of being loaded into large, covered containers. This quantity is estimated at about 15 truckloads -- perhaps about 400 cubic yards. Samples of the structural steel materials are being given to the New Jersey State EPA for analysis. Since there have been heavy rains in the area, contamination is not expected, and, accordingly, it is thought that permission can be obtained for normal disposal of this material.

Mr. Kress has had several discussions with Messrs. William Monroe and Grant Walton of the New Jersey EPA regarding disposal of the containerized material. Since the containers are covered, there seems to be less concern about further contamination of the disaster area.

New Jersey currently has their entire "land fill" problem under review, and this subject is fraught with state politics. It was suggested, however, that "burial" might be acceptable. One disposal method which might be favored is burial in an abandoned mine. New Jersey EPA geologist and University geologists are being contacted on location of such a New Jersey mine. Further, the trucking company involved in the clean-up operation are meeting with New Jersey EPA today (August 12) for additional discussions on "burial" sites.

New Jersey EPA officials advise they are working with Federal Regional EPA offices, and they have assured the Federal people that they have the situation under control. They believe that the Federal people will not intervene as long as they are convinced that reasonable progress is being made.

Containerizing the debris so that further runoff contamination is eliminated should weaken the Federal's position in this situation, allowing it to

revert to a State problem. State EPA people sampled water runoff before the debris was containerized and found only a low level of pesticide contamination.

It has been agreed that further conversation and contact with State EPA would be limited to Messrs. Robeson and Kress, in that order.

In summary, progress is being made on both the physical cleanup of the Kearny fire and on seeking mutually satisfactory debris disposal with State EPA. State EPA seem to be satisfied with our current approach.

L. P. Maxby

LPH/gl

cc - President - Shell Chemical Company - Mr. J. B. St. Clair
Vice President - Shell Chemical Company - Mr. J. B. Henderson
Vice President - Shell Chemical Company - Mr. J. W. Elger
Vice President - Public Affairs - Mr. H. E. Walker
Manager - Public Relations - Shell Chemical and R&D - Mr. R. F. Dunphy
Manager - Public Relations - Operating - Mr. J. H. Walter
Manager - Public Relations - Mr. R. H. Stine
Legal Department - Mr. J. A. Evans
Manager - New York Media Relations - Mr. T. K. Stewart
East Coast Representative - Environmental Conservation - Mr. W. E. Kress(N.Y.)
Public Relations Representative - Stamford - Mr. A. J. Ruska
Manager - Public Relations - San Francisco - Mr. L. F. Allen

August 18, 1971

TO FILE

SUBJECT: 8/2/71 Fire at Harvard Warehouse

Arrived at the warehouse on 8/11/71.

A. My first task was to determine the inventory left after the fire. (All shipments and receipts at the warehouse had been stopped immediately after the fire and were not resumed until 8/16/71.) The following procedure was followed in determining physical inventory.

1. I took the physical inventory at both the Kearny and Harrison locations.

2. These figures were then checked against the inventory previously taken by warehouse personnel.

3. In those instances where differences appeared between my inventory and the one taken by warehouse personnel, a recount was made.

4. These figures were then checked against the inventory figures submitted by Ron [illegible] in his wire No. [illegible] of 8/5/71.

5. Where differences appeared between the wire and those arrived at in 4 above, a recount was again made.

6. Attached are the physical inventories shown individually for the Kearny and Harrison locations and a combined total (all signed by Mr. Max Kellerman, the warehouse manager).

7. A Stock Movement Report was then prepared for Harvard and signed by Mr. Kellerman. This was hand carried back to San Ramon and given to Accounting (Bob Lichti) on 8/18/71.

The following items were found to need recoopering:

1. PHOSDRIN® 4 EC - 5 gal. - 2 pails have evidence of leakage at spout.

2. ALDRIN® 4 EC - 55 gal. - 1 drum - leaking - previously involved in decontamination incident at Standard Warehouse.

3. CIOVAP® Solution - 5 gal. - 7 pails leaking at seams.

None of the above were caused by the fire.

RECEIVED AUG 25 '71

Continued

B. After the physical inventory was taken, a determination as to Harvard's ability to continue functioning as our warehouse was made.

1. The building located in a populated area of Harrison is a 44,400 sq.ft. 4 story brick and concrete building. It does not have a sprinkler system. Red Label product may not be stored here, however, there is no restrictions against poisons. Shell merchandise in this building includes: ALDRIN®, Cat Collars, NO-PEST® Strips, and NO-PEST® displays. Other company's products include: copper tubing, trash cans, and medicine cabinets.

Because of the location of this building, Harvard was informed that we would permit them to store only NO-PEST® Strips and Displays and the collars there. The ALDRIN® will be moved to the Kenny location. We will follow up to insure compliance.

2. After the fire, only 3 buildings remained at the Kenny location. Two of these buildings are very old small wood buildings which I determined to be unfit for the storage of our products (most of our merchandise is presently in them). The third building is a 44,000 sq.ft. building constructed of brick and steel with a sprinkler system. Although this building was not damaged by the fire itself, the windows were blown out by the explosions that accompanied the fire. Repairs to this building were in progress and should be completed in another week. The bulk of our merchandise presently in this building and in all in good shape.

Other products presently in this building include:

1. Velsicol Chem. Co. (ALP) - Rubber Cement.

2. Tech Prod. Corp. - Epoxy and Urethane compounds, sealants, floor treatments, waterproofing paints, and masonry coatings.

3. Stein, Hall & Co. - Glues.

4. Sanaton Chem. Corp. - Soaps.

B. It was decided to allow Harvard to continue operating as a warehouse for us out of their existing facilities, with the restriction mentioned above placed on the Harrison facility. (Before this decision was reached, I checked with Jim Robson to determine if there was any reason operations should not be resumed. There were none.)

Continued

Mr. Kellerman assured me that service would not suffer when operations resumed. Based on past experience with Mr. Kellerman, I have every reason to believe service will be good. Presently, we are somewhat handicaped in order placement since the IBP machine was destroyed. Arrangements have been made with the EKR and KKN to work around this until a new machine is installed in approximately 3 weeks.

D. Jim Robson and John Connelly of the Princeton Plant have been on the scene since the day after the fire started. They are working on decontaminating and cleaning up the debris left in the building where the insecticides were stored. (The building was a 2 year old Butler type building and was the last one to catch fire.) The task is complicated by the presence of J. T. Baker Company products (Acids, Ammonia, and Acetone) mixed in the rubble with our products.

Quik Way Contracting and Excavating Company provided the heavy equipment to remove the steel from the warehouse floor and load the rubble into large truck bodies. These loads were moved to a field at one end of the warehouse complex awaiting a determination from the EPA as to disposal.

Jim Strain of Scientific Chemical Treatment Company has been working with Jim Robson and John Connelly on the decontamination and disposal problems and is also the J. T. Baker Company's representative at the scene.

When I left the scene on 8/16/71, there still remained on the warehouse floor enough rubble to require approximately 2 more days of hand sorting to remove intact containers. Once this is completed, the remaining rubble will be loaded into truck bodies (approximately 4 more) to await disposal instructions from the EPA.

Once the rubble is removed from the warehouse slab, the floor itself will be decontaminated.

E. C. Rodolph

ECR:kw

bcc: San Ramon - AD - ISD (2)

SC-5057-2 (REV.

INVENTORY REPORT

SHELL CHEMICAL CO.
AGRICULTURAL DIV.

THIS REPORT TO BE PREPARED AND MAILED THE 8TH, 15TH, 22ND AND MONTH END.

DATE: [illegible]

LOCATION
Name and Code:

MAIL
1. DISTRICT OFFICE
2. SHELL CHEMICAL COMPANY
AGRICULTURAL DIV., DISTRIBUTION
2401 CROW CANYON ROAD
SAN RAMON, CALIF. 94583

NOTE DAMAGED MATERIAL UNDER REMARKS

PRODUCT NAME	CONTAINER SIZE 55 GAL.	30 GAL.	5 GAL.	4x1 GAL.	6x1 GAL..QT	12x1 QT.	BAG	CASE	MISC.	PROD CODE REMARKS
ALDRIN 95% TECH										
ALDRIN 20 G.										
ALDRIN 4 E.C.										
ALDRIN L.F.E.		1								1080
ALDRIN 4 O.S.										
ALDRITE © 4 E.C.	1	333	1394							1110
	? LEAKER									
DIELDRIN TECH										
DIELDRITE © 1.5 E.C.										
GARDONA © 75% W.P.								5x5 LB.		
								12x3 LB.		
LANDRIN © 15 G										
~~AZODRIN 5%~~ ANT + ROACH	11 OZ.							24		3640
ANT + ROACH	15 1/2 OZ.							253		3650
BIDRIN © 8 (82%)		250 LBS NET								
		263 LBS NET								
PHOSDRIN © 10.3		300 LBS NET								
		292 LBS NET								
		290 LBS NET								
PHOSDRIN © 4 E.C.			7	27 CUBES - 2 TRAP HOLE LEAKED AT SPOUT						2560
AKTON © 2 E.C.										
D-D © SOIL FUMIGANT										
D-D/PIC *										
NEMAGON © 12.1 G		26.0 GAL								
VERTZ MAD CAT COLLARS								12x36 / 12x33		6610
NEMAGON © 8.6 E.C.										
NEMAGON © 12.1 E.C.										
DA	9									8000
BLADEX* 80%										
PLANAVIN © 4										
PLANAVIN © 75%								12x2 LB		
								2x10 LB		
CIODRIN © 80%										
CIODRIN © 3% DUST								44 (12x4 LB)		6070
VAPONA © TECH										
VAPONA © 2 E.C.										
VAPONITE © 2 E.C.			2	337						6030
VAP. © SCATTER BAIT								12x1 84		6300
								5x5 LB		
VAPONITE © 2 O.S.										
CIOVAP © SOL.			654		440					6500
CIOVAP © E.C.										
PEST STRIP* 4100								4x12 45		6750
PEST STRIP* 4155								1x46		
PEST STRIP* 6961								4x12 1		6770
NO-PEST © 5006								1x24 236	(10")	6790
NO-PEST © 6741								4x12 343	(10")	6790
NO-PEST © 5000								1x24 79	(10")	6790
	NO-PEST 5000	CASE						1386	(6")	6890
RABON © 50% W.P.	NO-PEST 6741							4x12 43	(6")	6890
RABON © 75% W.P.										
POULTRY SPRAY 50%								266	(6x4")	7470
RAVAP* 2 E.C.										
DIBROM										

	CONTAINERS AS SPECIFIED					REMARKS
ENDRIN-25 GAL. FIBER DRUM	94%	95%	96%	97%	98%	
ENDRIN-30 GAL. STEEL DRUM	94%	95%	96%	97%	98%	

A. [illegible] [illegible] [illegible]

1. [illegible] - CODE 9777 (24 COUNT) APPROX. 550 PER PALLET - 3 PALLE[illegible]
2. CARTONS "SHELL NO PEST STRIP INSECT. REPACKED MERCHANDISE" (24 COUNT.

14 PALLETS OF 20 BDLS. PER PALLET (25 BOXES PER BDL)
1 PALLET OF 8 BDLS.
7 LOOSE BDLS.

TOTAL 295 BDLS. (25 BOXES PER BDL

3. CARTONS CONTAINS 1X45 DOZ. NO-PEST DISPLAY PACK - ACD 115A RECLAI[illegible]

18 BDLS. (10 BOXES PER BDL)

B. DISPLAYS (NO-PEST)

		# CASES
ACD 82A	3 UNITS/CASES	165
ACD 83A	1 UNIT/CASES	210
ACD 113A	1 UNIT/CASES	288
ACD 115A	3 UNITS/CASES	146
ACD 130A	3 UNITS/CASES	16
ACD 125 + 125A	3 UNITS/CASES	362

*SPECIAL [illegible] [illegible] [illegible] FOR 24 DOZ NO PEST DISPLAY 3 UNITS/CAS. [illegible]
[illegible] ACD 83A 4 DOZ NO PEST DISPLAY 1 UNIT/CASE [illegible]

C. DISPLAYS (AEROSOLS)

	# CASES
ACD 194A TEST 1X3 DISPL	67

D. LIVESTOCK DUST BAGS

	# CASES
CASE OF 3 BAGS	72

INVENTORY REPORT
SHELL CHEMICAL CO.
AGRICULTURAL DIV.

[illegible] THE 6TH, 15TH, 22ND AND MONTH END

DATE: HARVARD

LOCATION
Name and Code: KEDRNY [illegible]

2. SHELL CHEMICAL COMPANY
AGRICULTURAL DIV., DISTRIBUTION
2401 CROW CANYON ROAD
SAN RAMON, CALIF. 94583

NOTE DAMAGE
MATERIAL UN[illegible]
REMARKS

PRODUCT NAME	CONTAINER SIZE									PROD. CODE / REMARKS
	55 GAL.	30 GAL.	5 GAL.	4x1 GAL.	6x1 GAL.	12x1 QT.	BAG	CASE	MISC.	
ALDRIN 95% TECH										
ALDRIN 20 G.										
ALDRIN 4 E.C.										
ALDRIN L.F.E.		1								
ALDRIN 4 O.S.										103[illegible]
ALDRITE® 4 E.C.	[illegible]	233	810							111[illegible]
	LEAKERS									
DIELDRIN TECH										
DIELDRITE® 1.5 E.C.										
GARDONA® 75% W.P.								6x5 LB.		
								12x3 LB.		
LANDRIN® 5 G										
[illegible] ANT [illegible] 11 OZ.								24		364
ANT & ROACH 15½ OZ.								253		365
BIDRIN® 8 (52%)		250 LBS NET								
		293 LBS NET								
PHOSDRIN® 10.3		300 LBS NET								
		245 LBS NET								
		290 LBS NET								
PHOSDRIN® E.C.			7 < INCLUDES 2 THAT HAVE LEAKED AT SPOUT							256[illegible]
AXTON® 2 E.C.										
D-D® SOIL FUMIGANT										
D-D/PIC*										
NEMAGON® 12.1 E.C.		26 E GAL								
		50 GAL								
NEMAGON® 8.6 E.C.										
NEMAGON® 12.1 E.C.										
AA	9									800[illegible]
BLADEX® 80%										
PLANAVIN® 4										
PLANAVIN® 75%								12x2 LB		
								2x5 LB		
CIODRIN® 80%										
CIODRIN® 3% DUST								14 (12x4 LB)		667[illegible]
VAPONA® TECH										
VAPONA® 2 E.C.										
VAPONITE® 2 E.C.			2	337						623[illegible]
V.A.P.® SCATTER BAIT								12x1 LB	84	630[illegible]
								6x5 LB		
VAPONITE® 2 O.S.										
CIOVAP® SOL.			654		440					650[illegible]
CIOVAP® E.C.										
PEST STRIP* 4100								4x12 45		675[illegible]
PEST STRIP* 4165								1x48		
PEST STRIP* 6961								4x12 1		67[illegible]
NO-PEST® 5036								1x96		
NO-PEST® 6741								4x12 44	(10')	67[illegible]
NO-PEST® 5000								1x24 79	(10')	67[illegible]
NO PEST 5000								1x24 1896	(6'x')	6[illegible]
[illegible] NO PEST		CODE 6741						2x12 43	(6'x')	65[illegible]
FARDEX® 75% W.P.										
[illegible] SPRAY [illegible]								346	([illegible])	74[illegible]
PAVAL[illegible] 2 E.C.										
[illegible]										

CONTAINERS AS SPECIFIED

						REMARKS
[illegible] 20 GAL. FIBER DRUM	[illegible]	[illegible] ALCOHOL SHELL [illegible] 3/5 [illegible]			[illegible] 7/28	
[illegible] 30 GAL. STEEL DRUM	[illegible]	[illegible] CROW [illegible] RECEIVED			[illegible]	
[illegible] 100% [illegible] CASE	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

A. DISPLAYS (NO-TEST)

		# CASES
ACD 53A	1 UNIT/CASE	66
ACD 118A	5 UNITS/CASE	5
ACD 125A	5 UNITS/CASE	396

B. DISPLAYS (AEROSOLS) # CASES

	# CASES
ACD-124A Test 1X3 TRAY	67

C LIVESTOCK DUST BAGS # CASES

CASE OF 3 BAGS 74

INVENTORY REPORT
SHELL CHEMICAL CO.
AGRICULTURAL DIV.

PREPARED AND MAILED THE 8TH, 15TH, 22ND AND MONTH END.

DATE *HARVARD*

LOCATION
Name and Code: *HARRISON*

1. DISTRICT OFFICE
2. SHELL CHEMICAL COMPANY
AGRICULTURAL DIV., DISTRIBUTION
2401 CROW CANYON ROAD
SAN RAMON, CALIF. 94583

NOTE DAMAGED MATERIAL UNDER REMARKS

PRODUCT NAME	55 GAL.	30 GAL.	5 GAL.	4x1 GAL.	6x1 GAL.(?)	12x1 QT.	BAG	CASE	MISC.	*PROD CODE* REMARKS
ALDRIN 95% TECH										
ALDRIN 20 G.										
ALDRIN 4 E.C.										
ALDRIN L.F.E.										
ALDRIN 4 O.S.										
ALDRITE ® 4 E.C.			*114*							*1110*
DIELDRIN TECH										
DIELDRITE ® 1.5 E.C.										
GARDONA ® 75% W.P.								6x5 LB.		
								12x3 LB.		
LANDRIN ® 15 G										
AZODRIN ® 5										
BIDRIN ® 8 (82%)		280 LBS NET								
		225 LBS NET								
PHOSDRIN ® 10.3		300 LBS NET								
		220 LBS NET								
		290 LBS NET								
PHOSDRIN ® 1 E.C.										
AKTON ® 2 E.C.										
D-D ® SOIL FUMIGANT										
D-D/PIC *										
NEMAGON ® 12.1 E.C.		16.6 GAL								
		30 GAL								
NEMAGON ® 8.6 E.C.										
NEMAGON ® 12.1 E.C.										
BLADEX * 80%										
PLANAVIN ® 4										
PLANAVIN ® 75%								12x2 LB		
								2x5 LB		
CIODRIN ® 80%										
CIODRIN ® 3% DUST										
VAPONA ® TECH										
VAPONA ® 2 E.C.										
VAPONITE ® 2 E.C.										
VAP. ® SCATTER BAIT								12x1 LB		
								6x5 LB		
VAPONITE ® 2 O.S.										
CIOVAP ® SOL.										
CIOVAP ® E.C.										
HARTZ ... COLLARS							*... 13228*			*6610*
PEST STRIP * 4100								4x12		
PEST STRIP * 4155								1x45		
PEST STRIP * 6951								4x12		
NO-PEST ® 5056 *10"*								1x66 *236*		*6790*
NO-PEST ® 6741 *10" REFRESHED*								4x12 *299*		*6790*
NO-PEST ® 5000								1x24		
FABON ® 50% W.P.										
FABON ® 75% W.P.										
FOUR-MO. SPRAY 50%										
FAVAR * 2 E.C.										
DIBROM										

	CONTAINERS AS SPECIFIED					REMARKS
ENDRIN 25 GAL. FIBER DRUM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
ENDRIN 30 GAL. STEEL DRUM	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	

A. KNOCKED DOWN CARTONS

1. CARTONS CODE 9997 (24 COUNT. APPROX 350 PER PALLET [illegible]

2. CARTONS SHELL NO-PEST STRIP INSECT. [illegible] (24 COUNT

14 PALLETS OF [illegible] CTNS. PER PALLET (25 [illegible]

1 PALLET [illegible] 5 CTNS

7 LOOSE CTNS

TOTAL 775 CTNS (25 [illegible]

3 CARTONS [illegible] 1×48 DOZ. NO-PEST DISPLAY [illegible] ACD 11S [illegible]

18 CTNS. (10 [illegible] PER CTN)

B. DISPLAYS (NO-PEST)

		# CASES
ACD 39A	5 UNITS/CASE	165
ACD 33A	1 UNIT/CASE	144
ACD 115A	1 UNIT/CASE	388
ACD 118A	5 UNITS/CASE	141
ACD 130A	5 UNITS/CASE	16
ACD 125	5 UNITS/CASE	136

SPECIAL [illegible] CASES FOR 54 DOZ. NO-PEST DISPLAYS

5 UNITS/CASE [illegible]

SPECIAL [illegible] CASES FOR ACD 33A 24 DOZ. NO-PEST

10 UNITS/CASE

TABLES

TABLE 1

Water Run-Off Samples From Site Prior to Clean Up Operations

(See Attached Map For Locations)

SAMPLE	DDVP	GARDONA®	CICDRIN®	ALDRIN®	DIELDRIN®	ENDRIN®
1	54ppm	5ppm	1ppm	9ppm	< 4ppm	< 8ppm
2	163ppm	6ppm	1ppm	6ppm	< 4ppm	< 8ppm
3	32ppm	2ppm	2ppm	6ppm	< 4ppm	< 8ppm
4	12ppm	< 0.5ppm	< 0.5ppm	< 2ppm	< 4ppm	< 8ppm
5	1ppm	< 0.5ppm	< 0.5ppm	< 2ppm	< 4ppm	< 8ppm
6	2ppm	< 0.5ppm	< 0.5ppm	< 2ppm	< 4ppm	< 8ppm
7	----	----	----	< 300ppm Combined ALDRIN, DIELDRIN and ENDRIN		

HARVARD WAREHOUSE COMPLEX

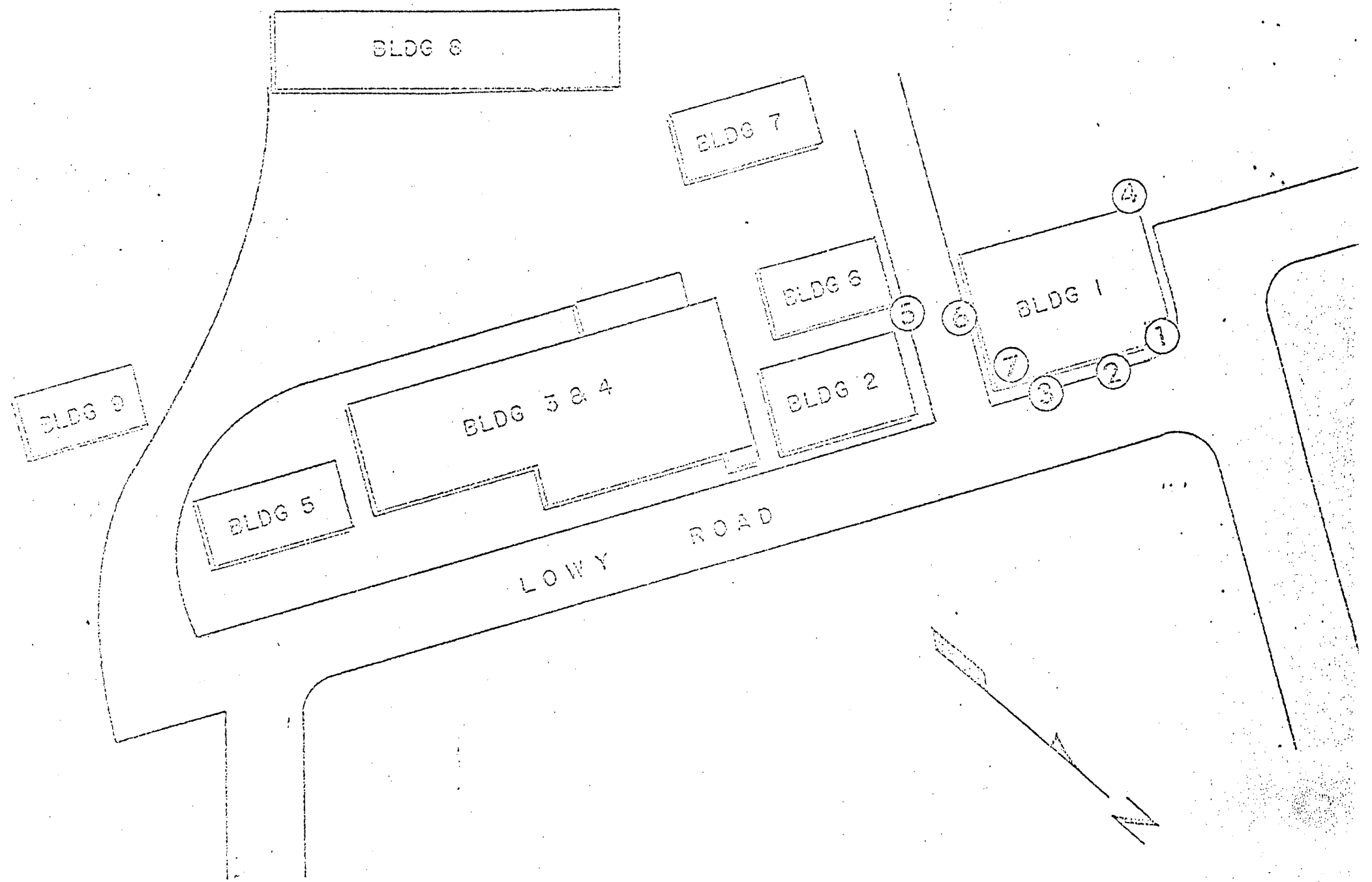


TABLE 2

Samples From Swimming Pools and Drainage Ditches Prior to Clean Up Operations. (See Attached Map For Locations)

SAMPLE	ALDRIN®	DIELDRIN®	B H C	D D T	LINDANE
1	0.019ppb	------	------	Trace	------
2	Trace	------	Trace	------	------
3	Trace	Trace	------	------	------
4	Trace	------	Trace	------	------
5	Trace	------	Trace	------	------
6	None Detectable				
7	None Detectable				
8	------	------	0.0205ppb	------	0.0220ppb

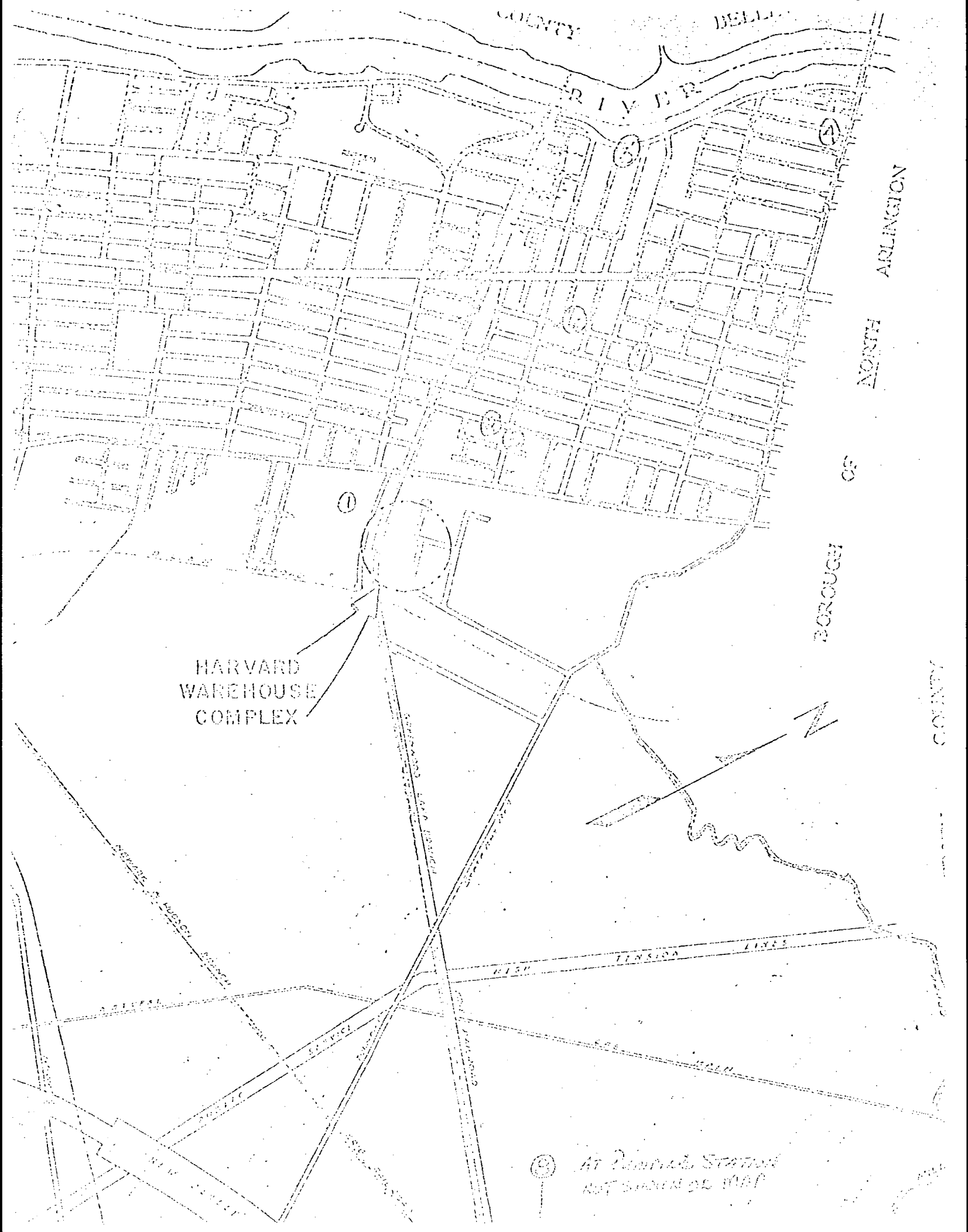

R I V E R
NORTH ARLINGTON
BOROUGH OF
HARVARD
WAREHOUSE
COMPLEX
N
At Planned Station
Not Shown on Map

TABLE 3

Samples of Run-Off Water During Pad Clean-Up Operations

(See Attached Map For Locations)

SAMPLE	ALDRIN®	DIELDRIN®	DDVP	RABON®	CYGON®
1	< 5ppm	< 8ppm	< 0.04ppm	< 0.1ppm	< 2ppm
2	< 5ppm	< 8ppm	< 0.04ppm	< 0.1ppm	< 2ppm
3	< 5ppm	< 8ppm	< 0.04ppm	< 0.1ppm	< 2ppm
4	< 5ppm	< 8ppm	< 0.04ppm	< 0.1ppm	< 2ppm

HARVARD WAREHOUSE COMPLEX

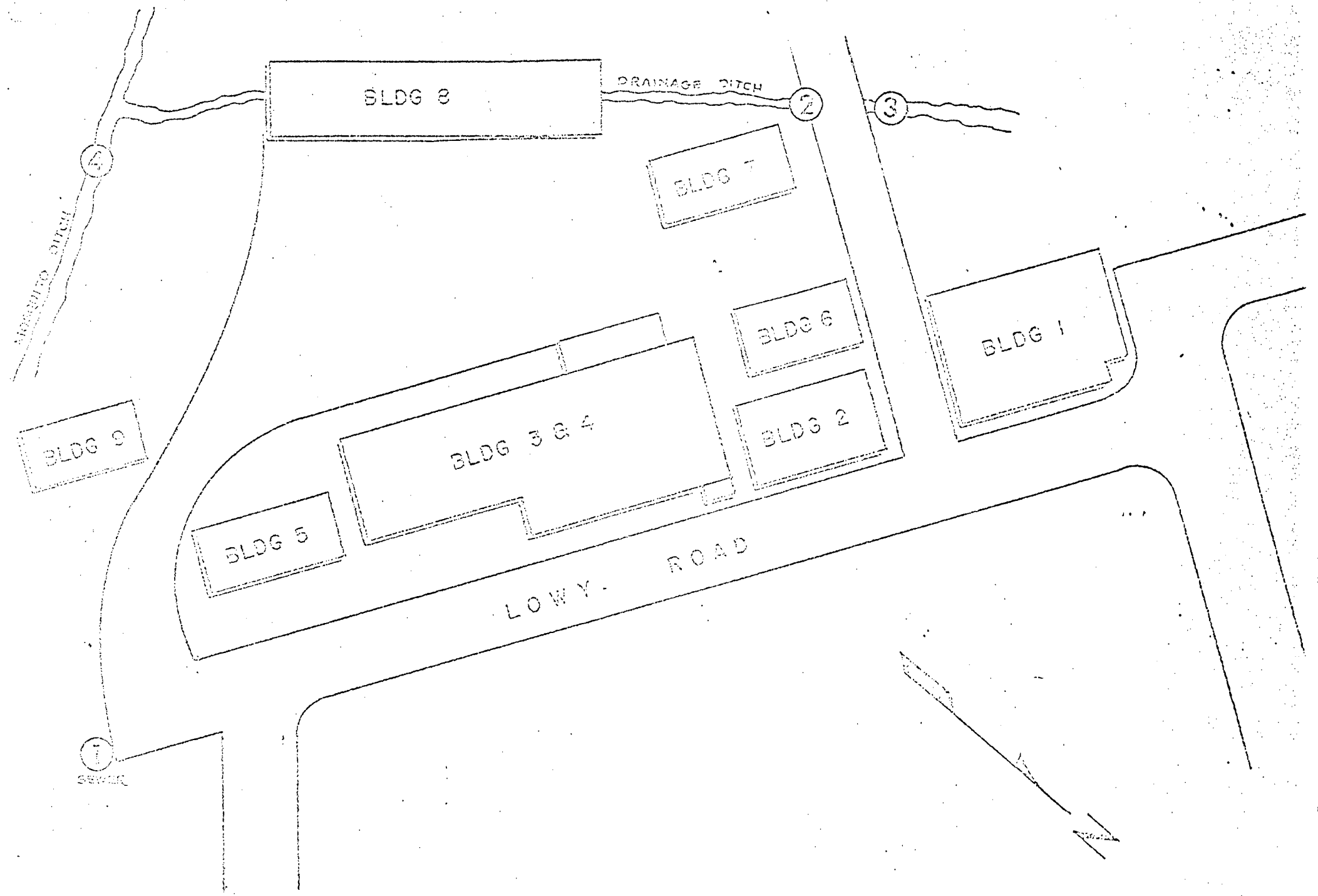


TABLE 4

Composite Samples From Materials in Containers After Completion Of The Clean Up Operations

SAMPLE	ALDRIN®	DIELDRIN®	DDVP	RABON	CIODRIN®
1	0.16%w	< 0.02%w	5ppm	< 10ppm	< 10ppm
2	0.09%w	0.06%w	30ppm	< 10ppm	< 10ppm
3	0.88%w	0.18%w	10ppm	< 10ppm	< 10ppm

APPENDIX

10 Miles from Kearny, Homeowner Felt Blast

By SUSAN SERVIS
Staff Writer

Ten thunderous explosions destroyed or badly damaged six buildings in Kearny last night.

Harvard Storage and Warehousing Co., where the explosions occurred, had no restrictions on the type of chemicals stored, said Councilman R. Edward Morrow.

The explosions and the interspersed popping of aerosal cans of chemicals spread the fire from Harvard Storage, at 500 Belleville Turnpike to five smaller buildings. Harvard Storage covered a half-block area.

The explosions broke windows in homes and food stores. James Kerrigan of Lyan Court in Lodeta, 10 miles away, said his house shook.

A security guard sitting in a building about a half mile from the fire was thrown from his chair at the first explosion.

Ronald Wojdyla, 21, of 93 W. Broad St., Bergenfield, was repairing a vehicle in the yard of the St. Johnsbury Trucking Co. a block from the explosion.

"I was under a truck when I heard a boom," he said. "It was louder than a firecracker. I ran to the shop window to see what was happening and then there was a boom and then another boom and then another boom."

Wojdyla said subsequent explosions knocked him to the ground. "All our windows and light fixtures were knocked out," he reported, "but luckily everyone had been evacuated from the building."

Wojdyla said the trucking company has called off work for today. "It's such a mess," he said, "a pure disaster."

The explosions, starting at 8:45 p.m., created a ball of fire that could be seen from Riverside Drive in New York. Dishes and pictures fell in homes on East Midland Avenue 200 yards away, where 30 families were evacuated as a precaution.

Police had little trouble getting people out of their homes. Most were out watching the fire, as were hundreds of others on the Hasbrouck Heights hill, which offered one of the best views. Spectators backed up traffic on the New Jersey Turnpike and other roadways in the area.

Morrow, chairman of buildings, said: "I want to know what unrestricted means, why they were permitted to store whatever they wanted. I can't say any more on the subject until I get all the correct information."

Tues., Aug. 3, 1971 Paterson News ☆

Fire Destroys Kearny Warehouse

By GEORGE BECKER

KEARNY (UPI)—A towering general alarm fire, spiking smoke and flames hundreds of feet in the air, raged through an industrial complex here Monday night, causing frequent explosions and forcing the evacuation of nearby homes.

Some 130 firemen fought the flames at the two-story Harvard Storage and Warehouse Co., 500 Belleville Pike, which was engulfed in red, orange and blue flames that shot into the air while clouds of black smoke swirled hundreds of feet above ground.

Police ordered the evacuation of about 50 homes along East Midland Avenue, about 200 yards from the blaze, as a "precautionary measure."

The blaze was reported under control at 12:30 a.m., and residents were permitted to return to their homes.

But nearly 100 firemen were still at the scene at 5 a.m. today working to douse the flames.

"It's down, but not out," a fire department dispatcher said.

Police said the Harvard plant was completely destroyed in the fire. Two other smaller warehouses were also burned.

One fireman suffered an injured thumb while fighting the blaze and at least two others were treated for minor injuries sustained from flying debris.

The blaze at first was believed to have threatened nearby chemical plants.

The flames spread to a section of the warehouse that held aerosol cosmetics that popped

(Continued on Page 2, Col. 6)

Fire Destroys Kearny Warehouse

(Continued from Page 1)

like giant firecrackers, while intermittent booms went off, sending up mushroom shaped flames. Police reported almost continuous explosions after the first alarm was turned in at 8:41 p.m. until as late as 11:00 p.m.

The blaze was visible as far off as Midtown Manhattan eight miles east of the fire. Some 2,000 onlookers jammed the streets and intersections in the immediate area, and police complained that they hampered the movement of police and fire equipment.

One man, Peter Butros, of 45 East Midland Avenue, said, "I was standing in the kitchen and one of the blasts knocked me against the wall." He said he took his "valuable papers" and "cleared out."

Another man, Sal Pampinella, of 44 East Midland Ave., said he was standing outside when the first blast occurred. "I went back inside to get a few things and everying was knocked off the walls," he said.

Observers at the scene said the blaze itself was a raging "inferno" and that most onlookers and residents watched the flames from surrounding hilly areas about 200 yards away.

Kearny Probes Blaze That Leveled Block

By THOMAS GOLODIK

Firemen began probing the charred remains of a Kearny warehouse today but it may be days before they determine what caused the disastrous fire last night that ripped through an industrial section of the town and leveled a square block of warehouses and factories.

There were no serious injuries reported during the general alarm blaze, at 590 Belleville Turnpike, although one fireman received a broken thumb and two bystanders were injured when they fell attempting to get out of the way of flying glass.

At the height of the fire, huge mushroom clouds of smoke, flame and flying embers shot hundreds of feet into the air, lighting up the entire area and turning low-hanging clouds in the night sky a bright orange.

Nearly 50 families had to be evacuated from East Midland Avenue, about 100 yards away from the burning building. Firemen said that a 25-foot embankment of the Erie-Lackawanna Railroad saved the homes from damage. Most of the force of the blasts was deflected by the embankment, and wind conditions swept embers in the opposite direction.

Many residents of the area ran to Gunnel Oval, a ball field opposite the housing development. "I've never been so scared in all my life," one resident said after firemen allowed them to return to their homes last night. "All you could see were the flames shooting into the sky. I grabbed my wife and grand-daughter and ran."

Although some residents reported broken windows and blown out doors, most said they sustained very little damage.

According to eyewitnesses, the fire started at one end of the Harvard Storage and Warehouse Co., located in the eastern end of the complex, and within five minutes had engulfed the entire building. A huge blast erupted from the building just after firemen responded to the alarm, sending red-hot 50-gallon drums and pieces of pipe sailing through the nighttime sky in a giant fireworks display.

Kearny Fire Chief Joseph Phillips said that an entire block of buildings was completely gutted by the intense heat of the fire and thundering explosions.

The fire, at one point, so rapidly intensified that several

See PROBING—Page 28

Probing Warehouse Blaze

Continued from Page 1

fire trucks were forced back from the scene without disconnecting hoses. One fireman said the plastic lights on the roof of his truck melted from the heat.

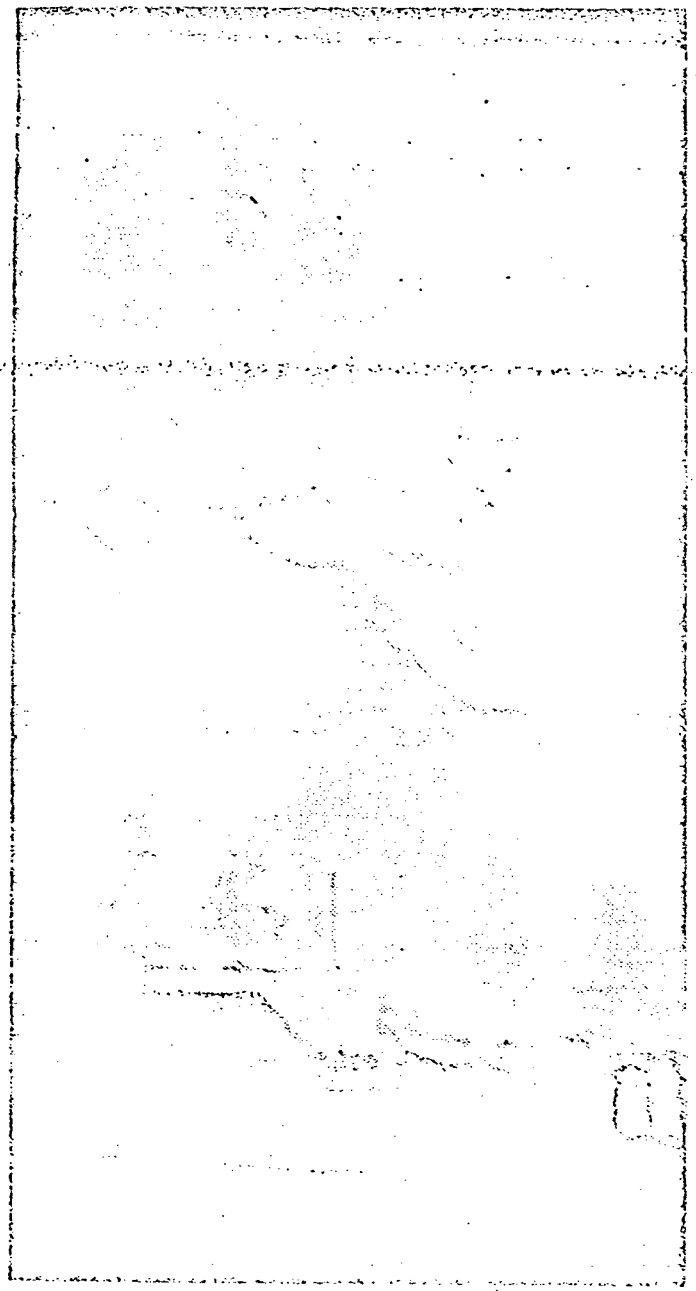
Truckers from the St. Johnsbury Trucking Co. continued to move trucks away from the fire until the first blast sent a huge ball of flame into the sky. Several received cuts from flying glass as they sprinted away from the scene.

Windows and doors of several factories in the area were blown out by the pressure of the explosions and at least two youths were arrested for looting at the scene.

The fire, although under control, was still burning early this morning, nearly eight hours after the first alarm at 5:42 p.m.

The chemical explosions created a pressure wave that set off fire and burglar alarms in both Kearny and North Arlington. Police stations in the entire North Hudson-East Essex area were swamped with phone calls as residents tried to find out what happened. Most thought it was a repitition of the disastrous Bayway Refinery fire in Linden last year.

Nearly two hundred firemen from Kearny, Newark North Arlington, Harrison, East Newark, Lynhurst and Jersey City fought the blaze as ambulance crews from Newark and Kearny rushed to the scene.



Balls of flame and smoke billow from burning building

Blasts rip warehouses in Kearny

By JERRY DEMAREST

A series of explosions ripped through a Kearny warehouse complex last night, sending up flames visible for miles and forcing the evacuation of an estimated 30 families.

Although thousands of spectators lined the area, hampering firemen in their work, no major injuries were reported.

Fireman Richard Pegram suffered a broken thumb and fireman Wayne Tier, a cut shoulder. Following treatment at West Hudson Hospital in Kearny, both were released.

An estimated 200 firemen from Kearny and adjoining municipalities brought the four-alarm blaze under control around 11 p.m., roughly two hours after the Harvard Storage and Warehousing Co. Inc., was reported in flames. The warehouse and two adjoining ones were destroyed.

The structures contained trailer trucks and chemicals.

Telephone lines to police departments and news offices in a three-county area were jammed immediately after the blast.

* * *

The explosion, described as "louder than the one at the Humble plant," produced heat waves and showered the area with thousands of tiny "bearing-like" pieces of plastic.

One Newark resident said, "The whole sky was turned red and white. Smoke is pouring up. Something just blew up. My God, there goes another blast."

The explosions, more than a dozen major and numerous smaller ones, devastated the

(Please turn to Page 6)

THE STAR-LEDGER, TUESDAY, AUGUST 3, 1971

Explosions rip warehouses in Kearny

(Continued from Page One)

warehouse as chemicals in pressure containers detonated.

As the containers blew, flames sored an estimated 400 feet skyward, and were visible from Manhattan, 10 miles away, to downtown Newark.

Other explosions resulted in Roman-candle effects and a few triggered brilliant "mushroom" clouds.

• • •

Traffic on Route 21 and adjacent roads was backed up for miles, and some fire equipment had trouble getting through. Thousands of spectators lined up at vantage points in Kearny and caravans of cars from outlying areas brought still more in.

Police tired to keep spectators away from the complex, but it was an impossible task. About the only time they retreated was when explosions went off. Many cheered every minor or major blast.

"Our biggest problem is people who are curious," said a Kearny police captain.

Fire - fighting equipment from Jersey City, Newark, Harrison, East Newark, North Arlington and Lyndhurst joined in battling the blaze.

Due to the blasts and threat of the fire spreading, police evacuated approximately 30 homes on the eastern slope of the East Midland Estates.

Most residents were expected to be allowed back early today.

Vincent Schiavo of 42 E. Midland Ave. was in the basement of his home when a neighbor told him about the fire across the railroad tracks from his house.

Going outside, Schiavo was watching the fire when a large explosion rocked the neighborhood, sending onlookers diving for safety.

The tracks, on an embankment about 75 feet high and running parallel to East Midland Avenue, probably saved several homes from the blaze.

Kearny Councilman R. Edward Morrow, who says he lives "just up the hill," was in his backyard when the first blast came. "I thought it was thunder until my wife yelled out and said the house shook."

Morrow, who is also Kearny buildings commissioner, later said he would call for an investigation of "why they allow unrestricted warehousing in this area."

Stan Skuza and Gene Conti, two 20 - year - old Kearny youths, said they saw smoke coming from the complex and went to take pictures. They were about 300 yards from the fire when a series of blasts shook the area.

Taking cover in a nearby gas station, the youths said they heard workmen were trying to get several trucks loaded with highly volatile cargoes out of the plant grounds.

Less than two blocks from the blast site, another resident reported flames shooting 10 to 15 stories high.

"The fire covers a block or so," he said, "but you can't see too much because of the smoke and flames. All the homes are shaking around here from the explosions. It must be chemical or paint drums blowing up."

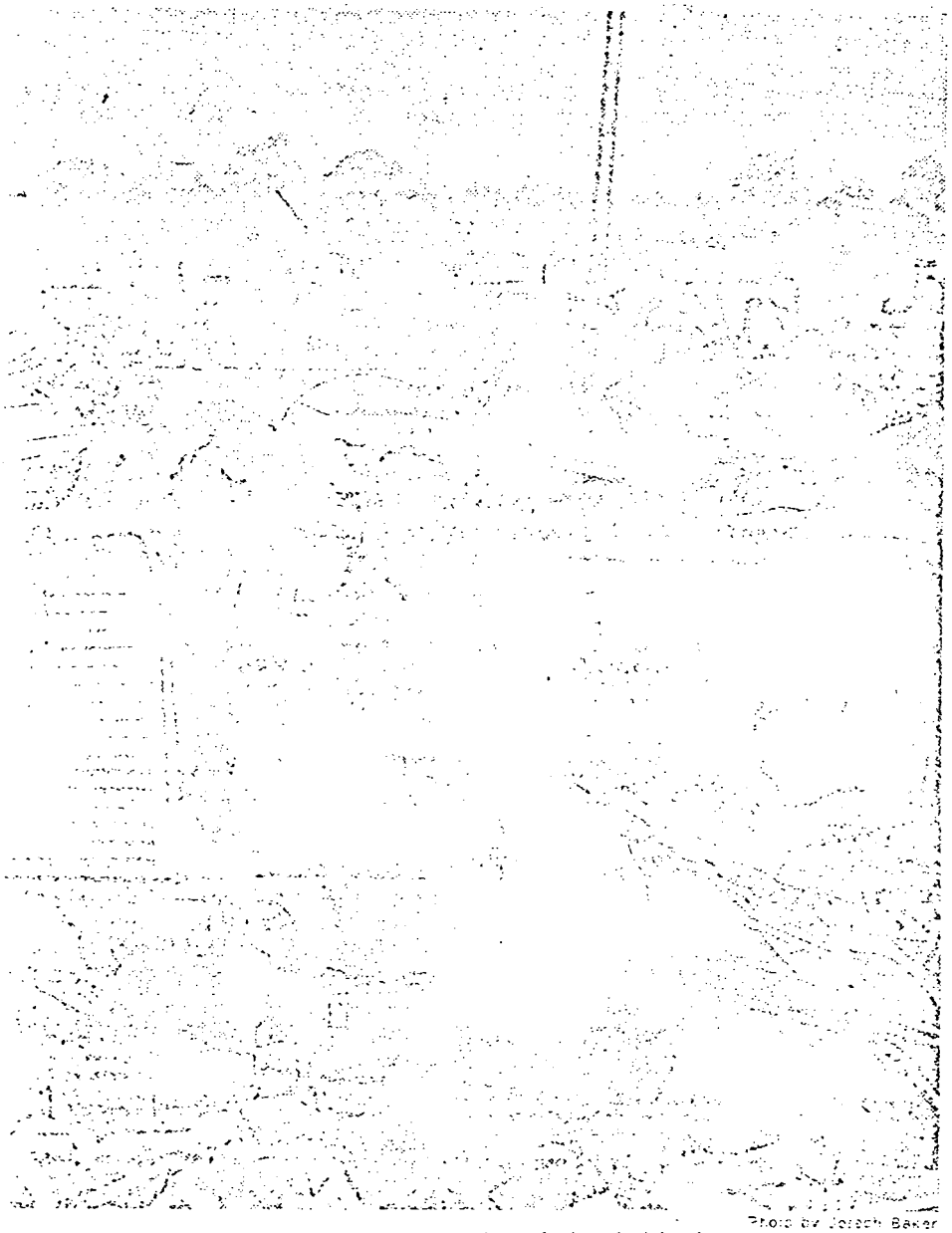


Photo by Joseph Baker

nants of a tractor-trailer sit in the midst of the field of rubble created by explosions and fire in Kearny

Kearny blasts spread damage for half a mile

By MICHAEL O'NEILL

The explosions and fire which destroyed a chemical warehouse complex and damaged two adjacent companies in Kearny Monday night also caused minor damage over a half-mile area near the plants.

The warehouse complex was rocked by an explosion at 8:49 p.m., and moments later was engulfed in flames, which Kearny Fire Department Assistant Chief Edward Beesley said he "conservatively" estimates reached 150 feet high.

The Kearny Fire Department is investigating the blaze, but Beesley doubted that the cause could be determined because of the fire's intensity. "I-beams 30 inches thick are twisted like pretzels," he said.

The warehouse on Belleville Turnpike was owned by the Harvard Storage and Warehouse Co., which used it to store chemicals under pressure for later use in manufacturing deodorants.

The first explosion was followed by more than a dozen others, and emi small bits of debri scattered over a h area.

Beesley blamed th embers for the des of eight trucks at jacent Parcel Deliver ice and damage to the company's buildin

Another adjacent Pratt Tool and Mac Co., reported some ment shattered.

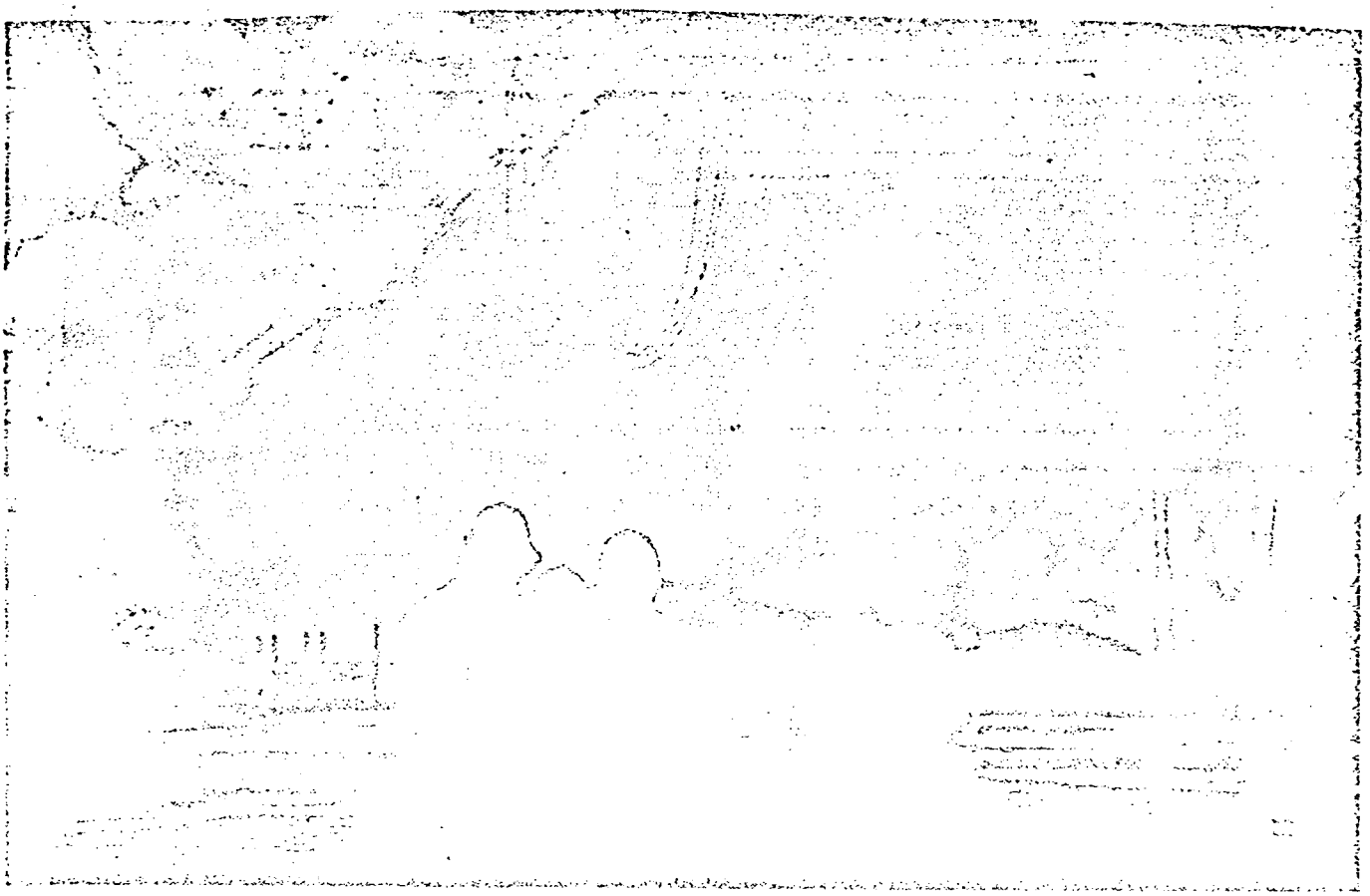
Home owners up half-mile away report ken windows, mirro fallen pictures.

Kearny Councilma Building Inspector Morrow said he is tigating the town's laws, with the a regulating the amou types of volatile m that can be stored i warehouses, especially close to homes.

The fire forced the ation of 49 families fr East Manor Estates f 9 p.m. Monday to yesterday. The housin opment is separated fr warehouse by railroad

Local and neighbori departments brought t under control at 11 Monday, but Kearny had four pieces of app at the scene at noon day to extinguish sma remnants of the blaze.

Two firemen suffered injuries, and some tors reportedly were injured by flying debri



(Herald-News Photo by Bill Ballenberg)

HUDSON EXPLOSION — Firemen playing streams of water are silhouetted against the billowing column of flame and smoke at the scene of last night's explosion and fire at a warehouse complex in Kearny. One fireman was injured and police said a number of spectators suffered minor injuries from a shower of burning debris.

Kearny blasts shake area

KEARNY, N. J. (AP) — Shattered glass flew about as firemen struggled to douse the flames at a warehouse complex here last night, hampered by continuing explosions and over-curious onlookers.

Fire and explosions ripped through six buildings in the warehouse complex, forcing the evacuation of more than 60 homes.

The warehouses contained trailer trucks and chemicals. Many of the chemicals were stored under pressure for use in manufacturing deodorants.

One fireman was injured and a number of spectators suffered minor injuries from burning debris. The main structure which was destroyed within minutes belonged to the Harvard Storage Warehouse Co. The company stores and distributes chemicals.

The blaze was brought under control at about 11 p.m., more than two hours after the first explosion erupted, sending apricot-colored flames into the air.

The fire could be seen from Manhattan, 10 miles away, and downtown Newark.

Crowds also watched from the Garret Mountain Reservation in West Paterson and the Eagle Rock Reservation in West Orange. The flames were also visible and the explosions felt in Nutley and Montclair.

Police said the building contained chemicals "under pressure" in barrels — oxides, chlorine, and "you name it."

Two trucking firms adjacent to the warehouse were most vulnerable.

Wayne Tiers of Kearny, an employee of the PDS company, said he hustled to his plant to remove trailer trucks from the parking area. He was hit on the shoulder with burning debris and was treated at the scene.

"Some trucks have been lost from the other company," Tiers said. "They just didn't know where the keys were."

. . .

my life and I've been handling a hack for 43 years," said Charles Easton, a taxi cab driver from Newark.

Traffic on Routes 21 and adjacent arteries was backed up for miles. Glass was shattered in buildings one mile away.

Police furiously sought to keep spectators away from the industrial complex. But the only time they retreated was when other explosions went off.

"Our biggest problem has been people who are curious," said a captain of the Kearny police department.

The injured fireman was taken to a West Hudson hospital.

Ronald Wojtyla, 31, of Bergenfield, a truck mechanic, was under a tractor-trailer repairing the rig. "I heard something like a firecracker going off," he said. "When I ran out, the warehouse already was burned down."

Wojtyla turned in the first alarm. He works for the St. Johnsbury Trucking Co. Other trucking concerns in the complex include Postal Delivery Service and Disch Excavation and Trucking Co.

Patrick Callahan, 21, a National Guardsman, was one of the last on the scene. He lives on a hill overlooking the warehouse area.

"I was [illegible] the first explosion," Callahan

Explosion aftermath

Damage from fallout

NORTH ARLINGTON -- Residents amused with the fireworks-type display caused by the Kearny explosion and fire Monday night may have been crying yesterday after learning fallout from the explosions had ruined the paint finish on their cars.

The warehouse, located a few blocks off the Belleville Pike, was used for storing pressurized containers of woman's hair spray, deodorant and other spray substances. Onlookers said that following each explosion, a mushroom cloud rose followed by a thick black cloud. At times, the cloud covered a good portion of the borough.

Deputy Police Chief Leonard Trez was one of the car owners hit. His green Pontiac was heavily stained with water size droplets that ate through the paint. He had the car washed and polished but the stains remained. It also stayed in the vinyl roof, he said. An adjuster estimated damage at $150. Trez said that his insurance company had already received several phone calls about similar damage and requested the company take action against the warehouse owners.

Hedley House, borough clerk, said his car would also need a new paint job and several of the borough police cars were also hit by the fallout. Police said they received calls all day about the problem and asked residents to call their insurance companies.

Not only was the police department beseiged with telephone calls, but the health department was also.

Charles Kientz, health officer, said the cloud of smoke stretched from the fire site, covered part of the borough and headed in a northwesterly direction. He said, "We have experienced three types of fallout from the fire. The first was an oily substance in droplet form which has been penetrating car finishes while giving the appearance of being waterdrops. By 3 a.m. Tuesday morning, we had to close our windows because the smell was so bad."

Other types

The second form was a white ash color and a powdery s[illegible] [illegible] black, heavier type similar to dry graphite, said Kientz. He said the white and the black forms could be removed in some cases while in other cases it left a permanent mark. It was evidenced by the damage to vinyl tops and the chrome on cars, he said.

A resident described it as being as if the car had been parked on the ocean bottom for a week. The finish wasn't pitted but the marks couldn't be wiped away.

A majority of the health department calls concerned swimming pools. Residents wanted to know if it was safe to swim, if not what to do and how to remedy the pollution. The Kearny Health Department has not yet been able to ascertain what particles were floating around after the explosions and consequently no remedies can be recommended.

Kientz has been telling residents that the safest method of fighting it was to completely empty their pools and wash them down. Residents however, have been hesitant to drain their pools and want alternative solutions.

The health officer also told pool owners to check with their supplier on the type of filter they have. Chemicals will not clean up the pollutants, only a filter will take them out, he said.

Residents have also been concerned about their garden vegetables. Kientz said that thick skinned ones could be salvaged as could leafy ones by taking off the most exterior leaves or skins. "No matter if the exterior skin or leaves are taken off, the fruit or vegetables should be washed throughly and inspected closely before being eaten," said Kientz.

Many residents expressed concern over the paint on their homes and the aluminum siding which appeared to be spotted.

Kearny Blaze Spurs Tighter Regulation

A Kearny councilman said today he plans to tighten up on regulations governing warehousing and storage facilities in the wake of Monday's spectacular blaze that leveled a square block of warehouses and factories.

Councilman R. Edward Morrow said a study showed there are no town ordinances at the present time to govern what type construction warehouses must be or what type of materials may be stored in them.

The councilman, who met yesterday with the building inspector, said he hopes to have an ordinance ready for the Aug. 11 council meeting that will spell out what type of warehouse construction will be permitted and what types of materials will be allowed for storage.

Morrow called the meeting with the building inspector as fire officials were still investigating the cause of the blaze that leveled the Harvard Storage and Warehouse Co. Nearly 50 families had to be evacuated from East Midland Avenue, about 150 yards from the burning building. Morrow said the 25-foot embankment of the Erie-Lackawanna Railroad served as a buffer and apparently saved

See FIRE SPURS — Page 11

Fire Spurs Tighter Controls

Continued from Page 1

the homes, all of them less than three years old, from being damaged.

The councilman said it has been found that some firms which take over a warehouse and conform to the same use as the previous tenant, move in and out without the town being notified. "We want the town to be aware of this in the future," he said, "and we want a report on the types of materials stored." He said Councilman Edward Grimes, fire department chairman, has promised full cooperation in tightening up the regulations.

Morrow said he will also try to exclude any more chemical firms from the uplands section of the town and this will also include chemical warehouses.

Although some Kearny residents reported broken windows and blown-out doors, most said their homes sustained little damage from the repeated explosions that rocked the industrial section. Some residents used garden hoses to wet down their roof tops as glowing embers fell over the town.

Wed., Aug. 4, 1971 Paterson News

Continue Probe Of Kearny Fire

KEARNY (UPI) — A levelled warehouse complex, bits and pieces of glass and hundreds of metal drums, blown open by intense heat, are the scarred remains today of a spectacular fire which sent smoke clouds billowing and drew 130 firemen to the scene.

Kearny Fire Department officials said Tuesday that an investigation was continuing into the cause of the spectacular general-alarm blaze at the two-story Harvard Storage and Warehouse Co., 590 Belleville Pike. No estimate of damage has been made, although fire officials said the warehouse complex was completely destroyed in Monday night's blaze.

A score of smoldering embers still burned slowly Tuesday, as two members of the department's fire watch squad hosed them down.

Deputy Fire Chief Edward Beesley said earlier three firemen had received minor injuries, including a broken thumb. More than 2,000 persons Monday gathered to watch the blaze, forcing firemen to complain that the crowd, which, at times applauded after an occasional orange, red and yellow mushroom ball of flame exploded in the humid summer evening, hampered their efforts in trying to contain the fire.

Stunned Kearny Buttons Up

KEARNY — A leveled warehouse complex, bits and pieces of glass, and hundreds of metal drums blown open by intense heat are all that remain of a spectacular fire seen throughout much of the metropolitan area.

But town Councilman R. Edward Morrow hopes the fire may be the opportunity to examine the town's safeguards against its heavy industry.

"I checked the city ordinances today to see what laws we have governing storing of chemicals and found we have none," he said. "I was shocked."

Morrow has already drawn up a new strict ordinance which will be introduced at the next Town Council meeting in two weeks.

The provisions of the proposed ordinance include the banning of any new chemical storage warehouses in Kearny, and stringent building requirements for existing ones.

"That building was made of sheet metal," Morrow said angrily of the warehouse which was the site of Monday night's blast. Harvard Storage and Warehousing Co., where the explosions occurred, had no restrictions on the types of chemicals it could store. It was believed that the building contained drums of a Freon-like chemical.

The shock waves of the explosion were felt in central and South Bergen.

Morrow thinks there is a lesson for communities trying to attract industries to improve the tax situation.

"Any community going to open its doors to warehousing should give extra thought to safeguards and not leave itself open for this kind of thing."

He said that real estate and business people sometimes overlook the safety of the community in their anxiety to attract industry.

Record-Star-Ledger
NEWARK, N. J.
D. 250,985

AUG 18 1971

Chemical Hazard eased

The Shell Oil Co. and Harvard Storage and Warehouse Co. are removing highly toxic chemicals that are posing a threat to the Hackensack River near Kearny, the regional office of the U.S. Environmental Protection Agency disclosed yesterday.

The chemicals, owned by Shell, consist of industrial acids, organic phosphates and insecticides, including derivatives of DDT. They were left exposed after a disastrous fire which destroyed five Harvard Storage warehouse buildings two weeks ago in Kearny.

EPA officials said the chemicals on the ground could, in event of rain or because of natural runoff, cause contamination of the Hackensack River and meadowlands.

• • •

Once the threat was established, an EPA enforcement team immediately contacted the U.S. Attorney's Office in Newark and recommended that Shell and Harvard Storage remove the chemicals immediately.

Shell and Harvard Storage agreed to place the cleaned-up chemicals in metal drums and to end any further threat to the river.

So far, 300 cubic yards of refuse mixed with DDT have been placed in steel drums. Fifteen tons of soda ash have been used to neutralize acids that spilled from their containers.

Another 900 gallons of industrial acids still in their containers, have been removed so that other chemicals would not eat through the containers and cause them to spill.

The ultimate disposition of the chemicals has not yet

Indiana Gazette
UNION CITY, N. J.
D. 55,356

AUG 10 1971

Agree to Act On Pollution

NEW YORK (AP) -- The Shell Oil Co. and Harvard Storage and Warehouse Co., Inc., have agreed to remove "highly-toxic" chemicals posing a threat to the Hackensack River, the New York office of the U.S. Environmental Protection Agency (EPA) reported Monday.

Both Shell and Harvard Storage agreed to place the chemicals in metal drums, and "effectively end any further threat to the Hackensack River" near Kearny, N.J., EPA said.

The chemicals, owned by Shell, consist of industrial acids, organic phosphates and insecticides, including derivatives of DDT.

The chemicals the EPA said were left exposed after a fire destroyed five Harvard Storage warehouse buildings Aug. 2 in Kearny.

EPA officials concluded that the chemicals on the ground could, in case of rain or because of natural run off, cause contamination of the river and the meadowlands.

The Herald-News
PASSAIC, N. J.
D. 89,569

AUG 10 1971

River threat to be removed

NEW YORK (AP) — The Shell Oil Co. and Harvard Storage and Warehouse Co., Inc., have agreed to remove "highly-toxic" chemicals posing a threat to the Hackensack River, the New York office of the U.S. Environmental Protection Agency reported yesterday.

Both Shell and Harvard Storage agreed to place the chemicals in metal drums, and "effectively end any further threat to the Hackensack River" near Kearny, N.J., EPA said.

The chemicals, the EPA said, were left exposed after a fire destroyed five Harvard

FOR YOUR INFORMATION:

A. J. Ruska
Public Relations

SHELL CHEMICAL
PRINCETON PLANT
RECEIVED
AUG 27 '71

Plant Manager	
Secretary	
Mgr Oprns/Tech	
ADM Operations	
Safety Engineer	
Emp Rel Rep	
Financial Rep	
Purchasing Rep	
Shipping Supvr	
Q. C.-Gp Ldr	
TPC	
Central File	

The Daily Journal
ELIZABETH, N. J.
D. 58,773

AUG 10 1971

Exposed Chemicals Pose River Peril

NEW YORK (AP) — The Shell Oil Co. and Harvard Storage and Warehouse Co., Inc., have agreed to remove "highly-toxic" chemicals posing a threat to the Hackensack River, the New York office of the U.S. environmental Protection Agency (EPA) reported Monday.

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APPENDIX 2

INVENTORY AT HARVARD WAREHOUSE PRIOR TO FIRE

PRODUCT	QUANTITY
ALDRIN 95%	21 X 350 lbs.
" 20% Granules	96 X 50 lbs.
" 4 E.C.	111 X 5 gal.
" 4 E.C. (L.F.E.)	1 X 30 gal.
ALDRITE 4 E.C.	1 X 55 gal.
" 4 E.C.	223 X 30 gal.
" 4 E.C.	1225 X 5 gal.
RABON 2 E.C.	2 X 1 gal.
DIELDRIN TECH.	129 X 200 lbs.
DIELDRITE 1.5 E.C.	7 X 30 gal.
" 1.5 E.C.	187 X 5 gal.
ENDRIN 95%	62 X 200 lbs.
" 95%	179 X 200 lbs.
GARDONA 75% W.P.	171 X 12 X 3 lb.
Ant and Roach Killer	1212 X 11 oz.(1 doz. per case)
Ant and Roach Killer	1201 X 15½ oz.(" " ")
PHOSDRIN Red and White	1 X 300 lbs.
" 10.3 (Tech.)	17 X 200 lbs.
" 4 E.C.	209 X 5 gal.
" 4 E.C.	225 X 4 X 1 gal.
D-D Soil Fumigant	17 X 54 gal.
D-D/PIC	8 X 5 gal.
NEMAGON 12.1 Conc.	4 X 30 gal.
" 12.1 Conc.	89 X 5 gal.
" 12.1 E.C.	54 X 5 gal.
PLANAVIN W.D.L. 4	60 X 4 X 1 gal.
" 75% W.P.	63 X 2 X 8 lbs.
CHLORDIN 80%	9 X 280 lbs.
" 3% Dust	349 X 12 X 4 lbs.
" 3% Dust	18 X 25 lbs.
VAPONA TECH.	100 X 590 lbs.
" "	61 X 55 lbs.
" 2 E.C.	89 X 5 gal.
" 2 E.C.	42 X 4 X 1 gal.
" 2 E.C.	45 X 12 X 1 qt.

PRODUCT	QUANTITY
VAPONITE 2 E.C.	2 X 5 gal.
" 2 E.C.	571 X 4 X 1 gal.
VAPONA Scatter Bait	2 X 25 lbs.
" " "	269 X 6 X 5 lbs.
" " "	145 X 12 X 1 lbs.
" 1%	1 X 4 X 1 gal.
CLOVAP Solution	1 X 30 gal.
" "	686 X 5 gal.
" "	514 X 6 X 1 gal.
" E.C.	8 X 4 X 1 gal.
" E.C.	243 X 12 X 1 qt.
RABON 50% W.P.	41 X 6 X 4 lbs.
RAVAP E.C.	55 X 5 gal.
" E.C.	67 X 4 X 1 gal.
" E.C.	69 X 12 X 1 qt.
ALLYL ALCOHOL	9 X 389 lbs.
VAPONA Strips (ACP-220)	384 units
NO-PEST Strips (5096-5006-6741-5000)	329,565 units
" " (Pre - 1971)	16,848 units
PEST Strips (Code 4100)	2,784 units
" " (Code 6961)	384 units
NO-PEST Strips (Code 5096)	2,020 units
" " (Code 5000)	1,152 units
" " 6½" (Code 6741)	194,160 units
" " " (Code 5000)	195,984 units
" " (Pre - 1971)	192 units
PEST Strips (Pre - 1969)	48,456 units
Gold Cages	53 Pallets

TELEGRAM ☐ EMERGENCY ☐ REGULAR

PRC 8/5/71

SRC G. S. WILLIAMSON

SRC H. MOSS JR.

The following products remain at Harvard Warehouse as of 8-5-71 and are shippable:

AGRICULTURAL PRODUCTS LOCATED AT HARRISON, NEW JERSEY

300 CTNS.	4x12 PACKS	NO-PEST	6741
236 CTNS.	1x96	NO-PEST	
414 4-LB PAILS		ALDRITE 4	
12 CTNS.		HARTZ CAT COLLARS	
187 UNITS		ACD-82A	
281 UNITS		113A	
139 UNITS		ACD-83A	
19 UNITS		ACD-120A	
74 UNITS		ACD-118A	
295 UNITS		ACD-83A MISER CARDS	
136 UNITS		ACD-125	

17 PALLETS KD CTNS.-20 BUNDLES/PALLET-APPROX. 25 BROWN CTNS FOR NO-PEST PER BUNDLE

AGRICULTURAL PRODUCTS LOCATED AT KEARNY, NEW JERSEY

45	4x12	NO-PEST	4100
237x1 GAL.		VAPONITE 2EC	
84	12x1 LB.	SCATTER BAITS	
72 BAGS		40/42	
1x55 GAL.		ALDRITE 4EC (LEADER)	
44	12x4 LB.	3% CIODRIN	
104 DISPLAYS		ACD-125A	
1x30 GAL.		ALDRIN 4	
5 DISPLAYS		ACD-118A	
480	6x1 GAL.	CIOVAP	
68 DISPLAYS		ACD-126A	

PRC 8/5/71

AG PRODUCTS LOCATED AT KEARNY (CONTINUED)

579x5 GAL.		CIOVAP	
66 DISPLAYS		ACD-83A	
1521	1x24	NO-PEST	5000
6x200 LB.		DIELDRIN	
2x590 LB.		VAPONA	
48 DISPLAYS		ACD-125A	
20x5 GAL.		ALDRITE 4	
2x5 GAL.		VAPONITE 2EC	
89	4x12	NO-PEST	6741
266	6x4 LB.	POULTRY SPRAY 50% WP	
223x30 GAL		ALDRITE 4EC	
24 PALLETS/36 EA.		ALDRITE 4EC - 5 GAL. PAILS	
66	1x24	NO-PEST	5000
9x55 GAL.		ALLYL ALCOHOL	2492
7x5 GAL.		PHOSDRIN 4EC	
75x5 GAL.		CIOVAP	
1 CASE	4x12	NO-PEST	6961

Will advise further details when available.

R. C. Boffa

APPENDIX 4

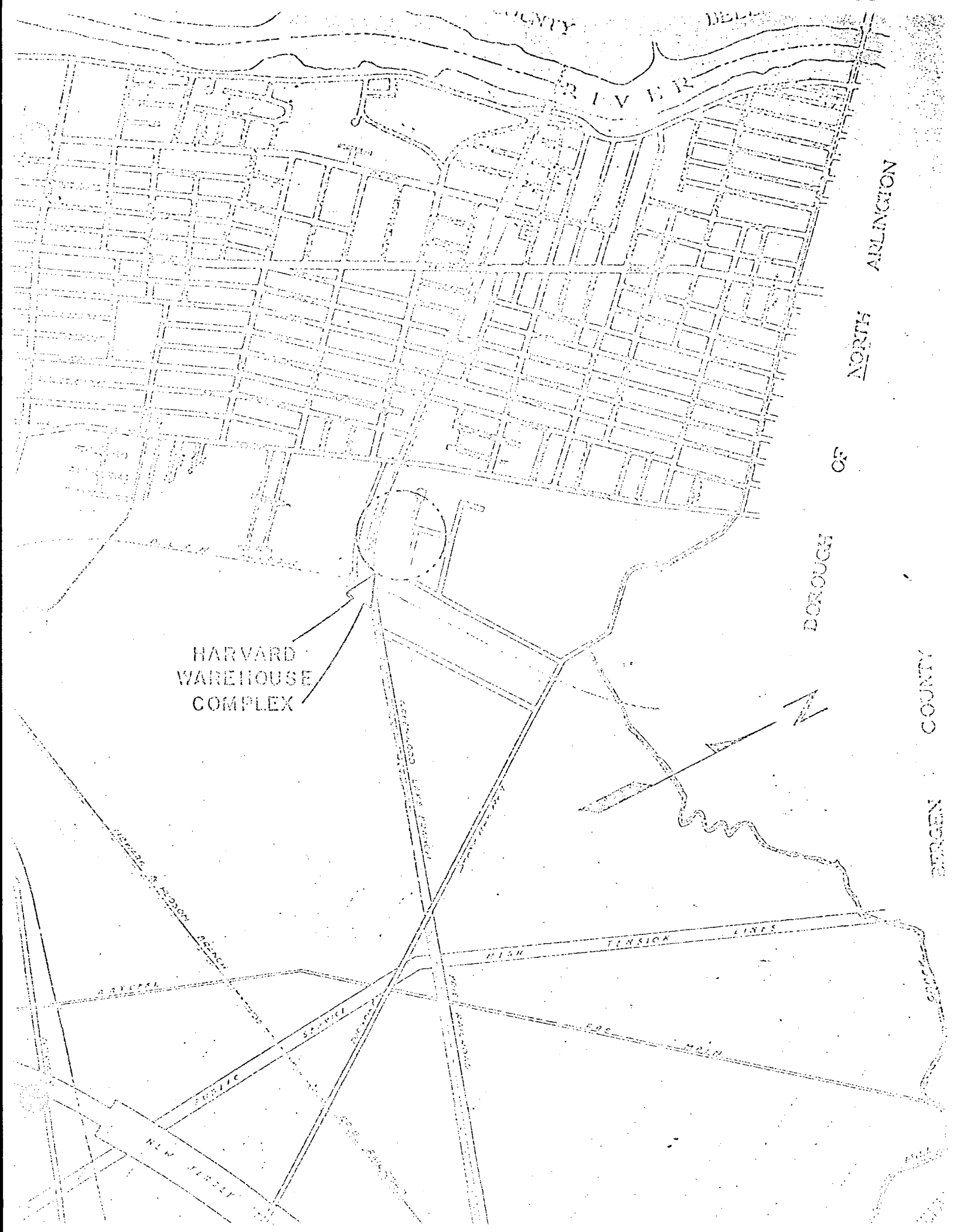
The City of Kearny is located in Northern New Jersey directly west of Exit 15W of the New Jersey Turnpike. Kearny is bordered on the west by the Passaic River and on the northeast by the Hackensack River. The city is also bordered by the Borough of North Arlington to the north; Belleville and Newark to the west; Newark to the south; and the meadowlands and Township of Lyndhurst to the east (see attached plot). The city is at a higher elevation than the Warehouse area, which is situated in the meadowlands at an elevation of 15 ft. above sea level.

The meadowlands are a vast marshy area east of Kearny. The meadowlands reportedly support a large variety of wild birds and some varieties of aquatic life. Drainage is directed from Kearny into the meadowlands via a series of drainage ditches called "mosquito ditches." Drainage is allowed to accumulate in the meadowland areas until it is eventually pumped into the Hackensack River at a normal rate of 1,800 gal./min.

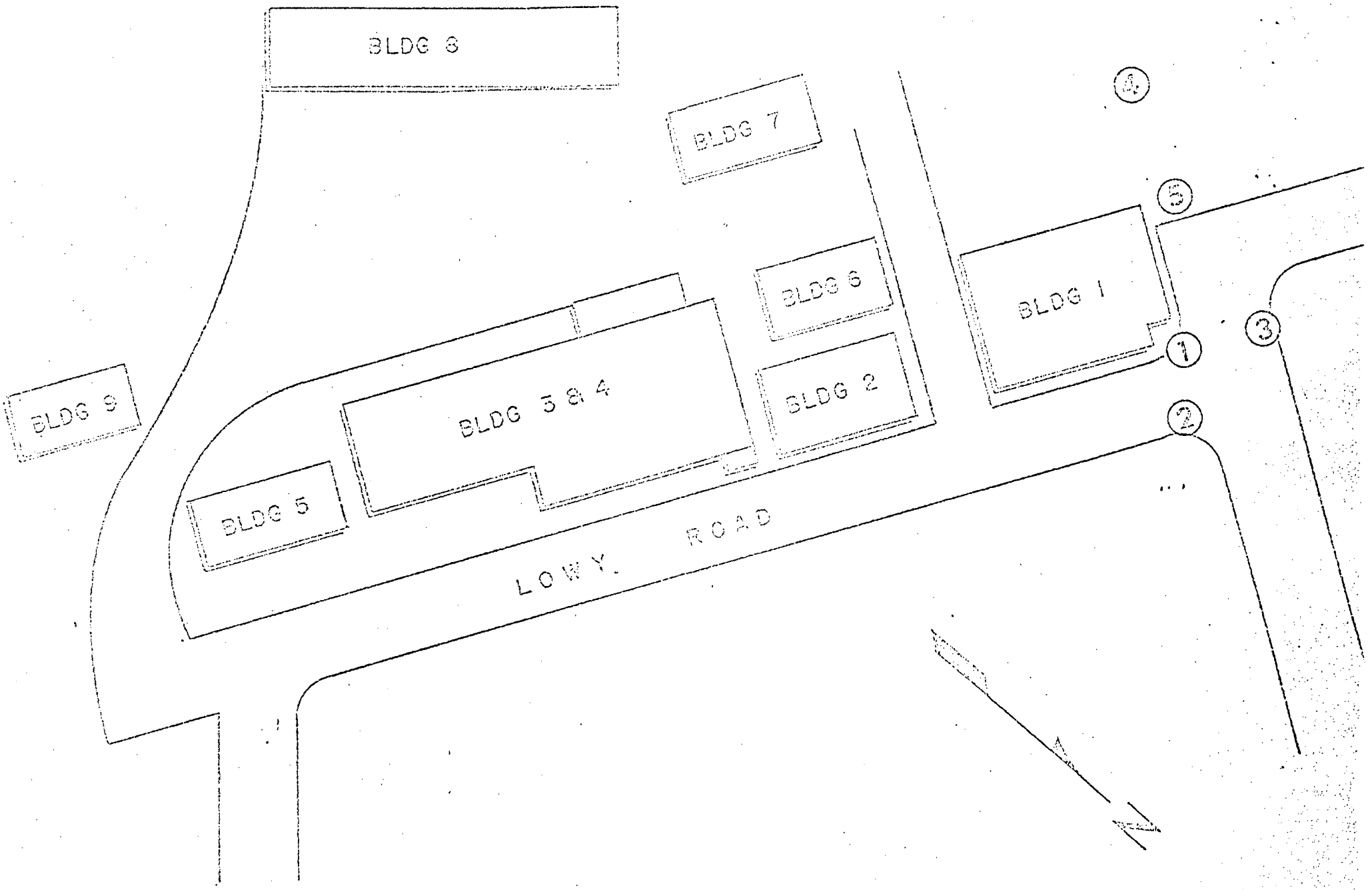
Harvard Warehouse is located in East Kearny in an industrial complex just off the Belleville Turnpike. This complex is at the lowest elevation of Kearny. The meadowland area has its origin on the east, adjacent to the Harvard Warehouse facilities. A residential area is situated to the south of the Warehouse site. The areas are separated by elevated tracks of the Erie-Lackawanna Railroad (see attached plot).

The Warehouse site occupies an area of approximately one and one-half square blocks. The facilities consisted of eight buildings which formerly housed an explosives plant for the DuPont Company (see attached plot). All buildings were of steel and concrete construction. Five of these buildings were completely destroyed in the fire. Building #1 was used to store agricultural chemical products along with mineral acids and bases belonging to J. T. Baker and Company. Small quantities of NEODOL were also kept in building #1. Buildings #2, 3, 4, and 5 were used to store solvents, peroxide, organic peroxides and flammables owned by the Industrial Chemicals Division and approximately 25 to 30 other companies. Building #6 was used as an office and a mechanics' garage. Buildings #7, 8, and 9 were untouched by the fire except for minor scorching and structural damage from flying debris.

In the immediate area of building #1, there are five (5) sewer inlets. Run-off waters going into sewer inlets #1, 2, and 3 run underground to the east end of the property eventually emerging into the "mosquito ditches." Run-off waters going into sewer inlets #4 and 5 drain into an open ditch to the south of building #1 which drains into the "mosquito ditches."


RIVER
NORTH ARLINGTON
BOROUGH OF
BERGEN COUNTY
HARVARD WAREHOUSE COMPLEX
HIGH TENSION LINES
GAS MAIN
PUBLIC SERVICE
NEW JERSEY

HARVARD WAREHOUSE COMPLEX



APPENDIX 5

INVENTORY OF J. T. BAKER COMPANY PRODUCTS IN BUILDING #1 AT HARVARD WAREHOUSE

COMMODITY	QUANTITY
Ammonium Citrate	2 x 250#
Nickel Chloride	2 x 300#
Sodium Hydroxide	32 x 25# 118 x 68#
Sodium Hypophosphite	32 x 5#
Acetone	7,128 x 8#
Methanol	820 x 8#
Propanol	72 x 5 gal.
Acetic Acid	12 x 450#
Hydrochloric Acid	6,528 x 6#
Nitric Acid	7,296 x 7#
Hydrofluoric Acid	660 x 1#
Sulfuric Acid	4,416 x 9#
Ammonium Hydroxide	2,880 x 4#

CHARLES H. HINE, M. D., PH. D.
UNIVERSITY OF CALIFORNIA MEDICAL CENTER
SAN FRANCISCO, CALIF. 94122
(415) 666-2396

PRACTICE LIMITED TO
INDUSTRIAL HEALTH
OCCUPATIONAL DISEASES

16 August 1971

INDUSTRIAL TOXICOLOGY
PLANT SURVEYS

Mr. Russell Maycock
Shell Chemical Company
One Shell Plaza
Houston, Texas 77002

Dear Mr. Maycock:

This letter will summarize the results of my discussions with Dr. Kook of West Hudson, New Jersey. I contacted him on the 4th of August 1971 and he advised me that he had treated four men, three for irritation on exposed parts of their faces and forearms, one for conjunctivitis, and one for smoke inhalation. Approximately 150 men were involved in containing the fire. He did not consider any of the involvements of significance. He was aware that there were OP compounds in the adjoining building and none of the men had presented with symptoms which would suggest any organic phosphate intoxication. I checked again with him further on the 6th and he advised me that he had x-rayed eight of ten men who had come in with complaints of sore throat and irritation of the chest. He had noted a mild pharyngitis and irritation of the eyelids in several of these. On my advice, he had checked liver and kidney function tests and stated that one man had albumin in the urine and one had shown sugar; however, he did not feel that either of these were related to the exposure. He did feel that the lung irritation was probably a result of epichlorhydrin or allyl chloride but he could not differentiate this from smoke inhalation. He was not concerned there would be any residual difficulty in any of the men who had been fighting the fire. I had previously given him my number and had encouraged him to call if he thought there might be difficulty. His office number is Area Code 201, 991-1517.

It would appear, therefore, that the men have all been examined and there has been no evidence of either liver or kidney involvement from inhalation. There has been some mild irritation of the upper respiratory tract and not more than three men have had skin or eyelid irritation. We seem to have gotten off very well and it is my opinion that there will not be any further complaints or lasting effects.

Sincerely,

Charles Hine

C. H. Hine, M.D., Ph.D.
Consultant in Toxicology

MAINWAY NWK

MG 223MG031105 08/11/71 12:36P EDT
FROM:SHELL PLZ NO
 012 HOUSTON TEXAS
ZIP 07032

J T ROBSON
C/O T J KENNEDY TRUCKING
342 SCHUYLER AVENUE
KEARNY, NEW JERSEY 07032

AS DISCUSSED THIS AM THE FOLLOWING STATEMENT MAY BE USED ON AN "IF ASKED" BASIS IF ANSWER TO PRESS INQUIRIES REGARDING THE EPA TELEX RELEASE ON THE HARVARD WAREHOUSE FIRE.
QUOTE..
"IF-ASKED" STATEMENT RE AP COVERAGE OF EPA RELEASE:
A FIRE DESTROYED FIVE WAREHOUSES OWNED BY HARVARD AND STORAGE WAREHOUSE COMPANY IN KEARNY NEW JERSEY ON MONDAY AUGUST 9TH.
SHELL HAD ONE OF A NUMBER OF CHEMICAL COMPANIES WHOSE PRODUCTS WERE STORED AT THESE FACILITIES.
ALTHOUGH SHELL DOES NOT OWN THE FACILITIES SHELL PERSONNEL WERE IMMEDIATELY DISPATCHED TO THE SCENE TO LEND TECHNICAL ASSISTANCE TO LOCAL OFFICIALS AND THE WAREHOUSE OWNER.
IN CONJUNCTION WITH THE MANAGEMENT OF HARVARD WAREHOUSE SHELL MADE ARRANGEMENTS TO CONTAIN THE RESIDUE OF THOSE SHELL AGRICULTURAL CHEMICAL PRODUCTS INVOLVED IN THE FIRE. QUALIFIED PERSONNEL ARE PLACING/ HAVE PLACED THE ABOVE MENTIONED PRODUCT RESIDUE IN METAL CONTAINTERS WHICH WILL REMAIN AT THE SITE UNTIL A FINAL DISPOSAL SOLUTION IS AGREED UPON BY ALL CONCERNED AGENCIES.
UNQUOTE.

(CORRECT LAST WORD 9TH LINE OF TEXT SHLD RD FACILITIES.)

R F DUNPHY SHELL OIL CO P O BOX 2463 HOU TEX 77001

MAINWAY NWK

PRINCETON NJER

DLR SUNDAY PLS
IF NH DLR MONDAY

RICHARD W HILL ~~XXXX~~ DLR DONT FONE
ASSIT US ATTORNEY FEDERAL BLD RM 502
970 BROAD ST

NK

IN CONJUNCTION WITH MANAGEMENT OF HARVARD WHAREHOUSE SHELL HAS MADE ARRANGEMENTS TO CONTAIN THE RESIDUE OF THOSE SHELL AGRICULTURER CHEMICAL PRODUCTS INVOLVED IN THE FIRE OF 8-2-71.

QUALIFIED PERSONNEL ARE SCHEDULED TO COMMENCE PLACING THE ABOVE MENTIONED PRODUCT RESIDUE IN CONTAINERS MONDAY AUG 9TH.

5 X COPIES REQ

DATE
JM AUG 6 1050P EDT

CHECK
MIN NL PD

TEL. NO.
~~799-0760~~

NEWARK NJER

SIGNATURE

(J T ROBSON)

SHELL CHEMICAL CO
BOX 813
PRINCETON NJER

SOCIAL REMINDER
YES | NO

WU 500 (RS-67)

THESE CONTAINERS WILL BE KEPT AT THE SITE UNTIL A FINAL DISPOSAL SOLUTION IS AGREED UPON BY ALL CONCERNED GOVERNMENTAL AGENCIES.

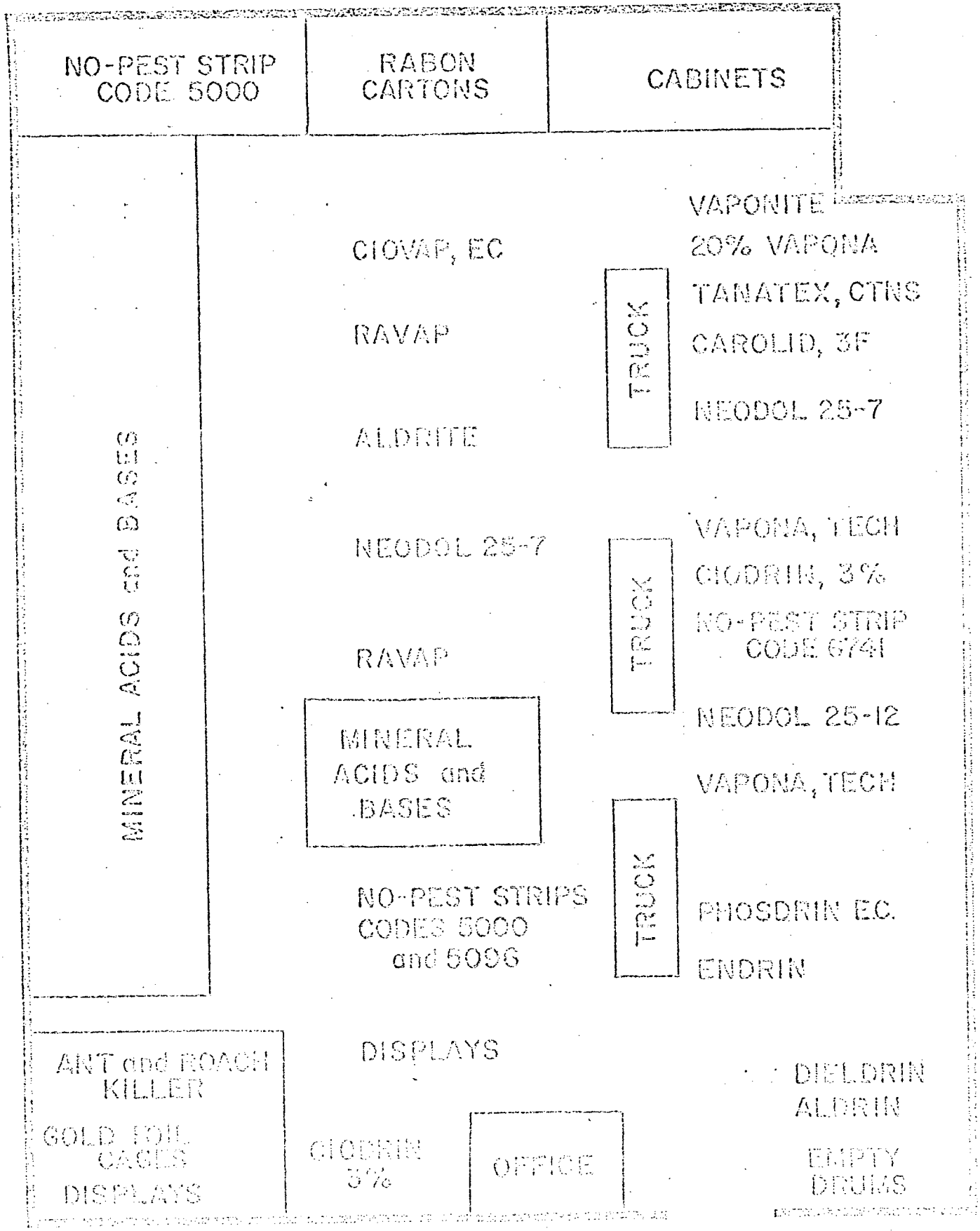
XNEXX THIS IS TO CONFIRM OUR COMMENTS OF 8-6-71

J T ROBSON SHELL CHEMICAL CO

SHELL CHEMICAL CO PO BOX 813 PRINCETON NJER
@X SEND COPIES CARE J T ROBSON

799-0760

APPROXIMATE LOCATION OF AG CHEM PRODUCTS IN BUILDING NO. 1



APPENDIX 10

LIST OF CONTAINERS AND CONTENTS ACCUMULATED FROM DEBRIS AT HARVARD WAREHOUSE SITE

Two (2)	- 15 cubic yds. roll-off containers	- organophosphates, paper, metal and wood.
Two (2)	- 20 cubic yds. roll-off containers	- chlorinated hydrocarbons, metal and wood.
Eight (8)	- 30 cubic yds. roll-off containers	- organophosphates, paper, metal and wood.
Three (3)	- 40 cubic yds. roll-off containers	- organophosphates, paper, metal and wood.
Four (4)	- 55 cubic yds. trailers	- organophosphates, paper, metal and wood.
Thirty (30)	- 55 gallon drums	- chlorinated gray residues.
Twenty-four (24)	- 55 gallon drums	- VAPONITE and CHOCAP.
Two (2)	- 55 gallon drums	- PHOSDRIN E. C., 4 lbs./gal.

APPENDIX 11

AGENCIES AND COMPANIES INVOLVED IN CLEAN-UP OF HARVARD WAREHOUSE SITE

Federal U. S. Attorney's Office

Federal Environmental Protection Agency

State of New Jersey - Department of Labor and Industry
- Environmental Protection Division
- Bureau of Solid Waste Management
- Bureau of Air Pollution Control
- Bureau of Water Pollution Control
- Department of Health
- Bureau of Radiation Protection
- Department of Law and Public Safety

City of Kearny - Board of Public Health
- Police Department
- Fire Department

L. J. Kennedy Trucking Company - Kearny, New Jersey

Harvard Warehouse - Kearny, New Jersey

Quick Way Contractors - Kearny, New Jersey

Rollins-Purle, Inc. - Wilmington, Delaware

Scientific Chemical Treatment Co. - Scotch Plains, New Jersey

Scientific Chemical Processing Co. - Carlstadt, New Jersey

Industrial Haulage Company - Bloomingdale, New Jersey

Industrial Refuse Removal Specialists - Bloomingdale, New Jersey

Schafer Industrial Removal Company - Springfield, New Jersey

City Construction Company - Jersey City, New Jersey

Manpower, Inc. - Kearny, New Jersey

Sarasohn and Company, Inc. - New York, New York

Western Electric Company - Kearny, New Jersey

APPENDIX 11 (Continued)

National Converters, Inc. - Union, New Jersey

J. T. Baker Company - Parsippany, New Jersey

Shell Oil Company
- Public Affairs
- Fire and Safety
- Insurance
- Security

Shell Chemical Company
- Public Affairs
- Agricultural Division
- Industrial Chemicals Division

Rollins-Purle, Inc.

REPORT TO SHELL CHEMICAL COMPANY

PRINCETON, NEW JERSEY

SUBJECT: DISPOSAL OF RESIDUE FROM WAREHOUSE FIRE
AT HARVARD STORAGE & WAREHOUSING CO., INC.
KEARNEY, NEW JERSEY

I. INTRODUCTION

In accordance with your Purchase Order #PA-44061, Rollins-Purle has investigated the site of the fire at Harvard Storage and Warehousing Co., Inc., Kearney, New Jersey. An examination of the refuse remaining following Shell's clean-up operation was made and representative samples were obtained for analytical work at our laboratory. Discussions with Messers. Robson and Connelly were held on the site concerning the nature of the material in the Warehouse before the fire, the clean-up procedures used, and the method of ultimate disposal required.

The conclusion reached as a result of the site inspection and examination of the samples recovered is the need for further segregation in order to obtain approval from the regulatory authorities and to minimize the cost of ultimate disposal. In general, the residue can be separated into several rough groups for disposal according to their nature and treatment requirements.

II. CATEGORIES OF WASTES

Category 1. Large pieces of metal including drums, drum lids, wood, channel iron, siding, etc. that can be landfilled directly without treatment. This material, of course, must be handled under the supervision of qualified personnel and guaranteed that it is safe for municipal landfill disposal. It should be inspected piece by piece and washed down if necessary to insure the absence of toxic compounds.

Category 2. Strictly charred or unburned No-Pest strips or cartons containing them, contaminated with pesticides or their breakdown products. This material is definitely unsuitable

for land disposal and must be incinerated in a high temperature, multiple chambered incinerator equipped with adequate exhaust gas scrubbing devices.

Category 3. The ash, rubble, earth and glass component of the residue. It is suggested that this material be landfilled in such a manner that no environmental contamination occurs. Two possible means are: a) encapsulation with lime in a segregated landfill receiving little or no liquid industrial waste; and b) landfill at a site provided with complete leachate control.

Category 4. Bottles in drums, approximately 1500 gallons of acetone in one gallon bottles and 500 gallons of Vapona and Ciovap in one quart and one gallon bottles. These are all flammable liquids and lend themselves readily to controlled incineration.

Category 5. Mixed acids and alkalies in one gallon bottles. These compounds are effectively neutralized at the site and do not present a disposal problem. The glass from broken bottles contributes largely to Category 3 above.

III. MATERIALS HANDLING

It is suggested that Shell Chemical be responsible for the segregation into the above categories. Category 1 material could be hand separated, cleaned, and removed to a local municipal landfill.

A possible method for separating Categories 2 and 3 would incorporate a coarse screening technique through 2-inch mesh screen. A portable conveyor feeding a stationary slanted screen of the correct size should be adequate for the generalized separation needed. This segregation should produce about 100 cubic yards of Category 2 material requiring incineration and probably 250 cubic yards of Category 3 requiring chemical landfill. This is based on an estimated total of 550 cubic yards of residue. It is suggested that segregation be performed at the warehouse site to reduce the transportation costs since the material that can be directly landfilled represents a significant part of the volume. Category 2 residues would then be bagged in polyethylene drum liners for ease of handling and to minimize contamination of the environment and handling equipment. Category 3 residues would be returned to the roll-on, roll-off bins for transport to the disposal site.

Category 4 wastes can be handled by emptying all burnable liquids now in bottles into drums so that a vacuum tanker can then decant the drums and remove all 2,000 gallons at the same time; the organic liquid would then be destroyed by incineration. The pesticides could be segregated for incineration and the acetone given to a solvent reclaimer as an alternate.

IV. ANALYTICAL PROCEDURE AND RESULTS

The disposal program outlined above is based on the assumption that Category 3 materials may be landfilled. Therefore, samples were taken for laboratory analysis in order to test this assumption. The samples were as follows:

Sample #1. Ash from segregated 20 cubic yard bin containing material from chlorinated hydrocarbon area.

Sample #2. Ash from 30 cubic yard bin containing residue from Vapona storage area.

Sample #3. As Sample #2 but from different bin.

Sample #4. As sample 2 and 3, but from a third bin; clinker-like material.

Sample #5. Ash from J. T. Baker, Inc. acid storage area, partially burned.

Sample #6. General residue from center of warehouse slab.

Sample #7. Wet ash from acid neutralization procedure, from western edge of slab.

Sample #8. A gross sample of residue from pad.

After examination a composite was made of samples 2, 3, 6, and 7 since the materials were very similar in gross appearance. Sample #8 was mainly charred No-Pest strips and bits of rubble mixed with generalized ash and glass; no attempt was made to analyze this mixture.

In order to check for potential contamination of ground waters in the event these materials are landfilled, samples 1, 4, 5 and the composite were treated as follows:

1) Weighed aliquots were extracted at room temperature with distilled water for two days.

2) Aqueous extract filtered and a second extraction of the ash performed in the filter funnel using approximately 200 milliliters of water acidulated to pH 3.0 with HCl.

3) The ash was finally extracted with 200 milliliters of organic solvent, a 1:1 mixture of xylene and methanol.

All three extracts were analyzed separately. The aqueous extracts were analyzed for pH, dissolved solids, specific metals, and chloride ion. Aliquots of the organic extracts were evaporated to dryness at 95°C to determine residual soluble matter. Qualitative studies were carried out on the extracts for detetmination of residual chlorinated pesticide breakdown products.

The result of these studies are presented in the accompanying table. In general they indicate that the major part of the ash residue will present no hazard to normal ground water leaching conditions in landfills. The major soluble component of the aqueous extracts of samples 1, 4 and the composite appears to be NaCl as deduced from the chloride levels found. Sample 5 was also high in chlorides, presumably from HCl arising from broken J. T. Baker acid bottles. The residual alkalinity in most of the ash is enough to buffer any naturally acidic ground water. Very little soluble metal contamination was observed in either extract, iron and zinc being present only in trace quantities.

Only Samples 1 and 4 showed significant amounts of soluble organic residues. In both cases over 90% of this residue was present in a separate methanolic phase containing water and as such, probably represents a hydroxylated substance. Traces of chlorinated hydrocarbon were found in samples 1 and composite; none was found however in sample 4 with the largest amount of extractable organics.

In conclusion, it appears that a leachate-controlled landfill is our acceptable site for deposition of Category 3 materials. Failing that, a lime encapsulation process while landfilling would also be satisfactory. The lime barrier would tie up any heavy metals not observed in the small samples taken, would serve to neutralize any acidic leaching from the ash and will bind up and aid in the degradation of any organic components working out of the landfilled mass.

Respectfully Submitted:

for ROLLINS-PURLE, INC.

Peter Williamson

Peter Williamson
Harry A. Alsentzer

ndr

	Aqueous Extract		Acidic Extract		Organic Extract	
Sample[1]	pH	% Soluble	pH	% Soluble	% Soluble[2]	Chlorinated Hydrocarbons
1.	7.35	2.4	5.75	1.0	2.0	30± 20 ppm
4	8.9	3.2	7.4	0.6	6.5	Not detected
5	1.7	4.3	2.5	3.3	0.43	———
Composite	8.2	2.7	6.4	1.1	0.18	± 10 ppm

1) Samples were of roughly equal volume and weighed between 25 and 55 grams.

2) Represents that fraction which does not vaporize at 95°C only.

ADDENDUM

COST EVALUATIONS BASED ON ROLLINS-PURLE CHARGES

It is assumed that it will be far more economical for Shell to carry out the segregation into categories since Rollins-Purle does not have the necessary personnel available and would have to sub-contract the work at local contractors rates. Supervision by our engineering staff for the whole operation would also prove costly. Once the segregated materials were available, then Rollins-Purle supervisory personnel would oversee the necessary testing, treating and disposal at appropriate sites. Transport of the wastes could be either by Shell, Shell's agent or Rollins-Purle, depending on the type of material and its ultimate disposal site.

Category 1 and Category 3

1) Cost to discharge in landfill	$75.00/20 yard^3
2) Supervision for same	$200.00/day by qualified Rollins-Purle engineer
3) Lime per cubic yard of waste	80 lbs. at 2¢/lb. delivered and blown in place
4) Transportation to landfill	$50 up to 25 miles for 40,000 lb. load; $90.00 to Logan

Category 2

Incineration including handling and scrubbing at Logan	2.4¢/lb. of waste delivered

Category 4

Bottles	13¢/gallon plus $10.00 per drum handling and decanting charge

Scientific Chemical Processing, Inc.

PHONE: 201 - 939-0467

216 PATERSON PLANK ROAD
CARLSTADT, NEW JERSEY 07072

August 23, 1971

Shell Chemical Company
P.O. Box 813
Princeton, New Jersey

Attention: Mr. Jim Nelsen

Gentlemen:

Confirming our recent discussions regarding the disposal of chemical bearing waste materials, as per samples, we would like to offer the following proposal for your consideration:

Shell will deliver, freight prepaid, to Scientific Processing, Carlstadt, New Jersey, approximately 600 to 650 cubic yards of said chemical bearing residues. Scientific Processing will provide appropriate storage facilities and additional processing as required. Scientific Processing will also bear responsibility for any additional transportation and disposal costs incurred in effecting the ultimate disposal of this material in a manner acceptable to all regulatory agencies of government.

Shell will reimburse Scientific Processing the sum of $10,000.00 payable ten (10) days after delivery of the above mentioned material to Scientific Processing.

Upon acceptance of this proposal, Scientific Processing will provide Shell with certification of appropriate insurance coverage. All phases of this operation will be accomplished within the framework of existing Federal, State and Local regulations, upon receipt and ultimate disposal of the material.

We hope this proposal meets with your approval and if you have any further questions, please do not hesitate to give us a call.

Very truly yours,

SCIENTIFIC CHEMICAL PROCESSING, INC.

Herbert P. Case, Jr.

HPC:pax
cc: Mr. John Connelly

An Extract From —

THE NEW JERSEY REGISTER

Vol. 3 No. 9 Date September 9, 1971

The following is promulgated by NEW JERSEY STATE DEPARTMENT OF ENVIRONMENTAL PROTECTION

New Jersey State Chamber of Commerce
54 Park Place
Newark, New Jersey 07102
Telephone (201) 623-7070

Issued as a service to members

Extract No. 57 Date Sept. 9, 1971

ENVIRONMENTAL PROTECTION

THE COMMISSIONER

Emergency Rule on Containment And Disposal of Pesticides

On August 25, 1971, Richard J. Sullivan, Commissioner of Environmental Protection, pursuant to authority of N.J.S.A. 13:1F-1 et seq. and in accordance with applicable provisions of the Administrative Procedure Act of 1968, adopted an emergency rule concerning the emergency containment and disposal of pesticides.

The Department of Environmental Protection has found that industrial and agricultural upsets or malfunctions, fires, explosions, and acts of God or other casualties, or unexpected circumstances result in the immediate need to dispose of large quantities of pesticides, and that such a large scale disposal presents a great danger of contamination of the soil, air, and waters of this State, and, therefore, constitutes an imminent peril to the public health, safety, and welfare resulting in an urgent need for control of such disposal.

The complete text of the emergency rule follows.

EMERGENCY CONTAINMENT AND DISPOSAL OF PESTICIDES

1. Whenever any fire, explosion, casualty or any other unexpected event or circumstance results in upset or spillage of any pesticide or results in the placement or location of any pesticide such that it might move, flow, seep or in any way emanate from such location into the air, into any adjacent property, into any drain or sewer, into any source of potable water, into any ground water or into any of the waters of this State, then such pesticide shall immediately be contained, covered, or removed or such other steps taken in accordance with this regulation, as may be necessary to stop or prevent any such movement, flow, seepage, or emanation.

The responsibility for the measures required shall be jointly and severally upon (a) the owner of the premises upon which such pesticide is located; (b) the person responsible for the presence of the pesticide on the premises; and (c) any person responsible for the upset, spill, or circumstances resulting in such placement or location of the pesticide described in this paragraph. Each of the persons designated in (a), (b) and (c) above shall be responsible for immediate notification to the Department of Environmental Protection upon the occurrence of a pesticide accident as described herein.

2. No person shall discard, burn, bury, or in any other way dispose of any pesticide except in accordance with a plan for such disposal approved in writing by the Department of Environmental Protection.

3. Before any person disposes of any pesticides, he shall first submit to the Department of Environmental Protection a written plan giving said Department reasons to be assured: (a) that such disposal will not result in the contamination of the air or of any surface waters, ground waters, potable waters, or any other waters of this State; (b) that such disposal will not result in the incineration or placement in any landfill, dump, or refuse disposal area of any pesticide, except as may be approved in writing by said Department; and (c) and that such disposal will not endanger the public health, safety or welfare.

4. The term "disposal" as used herein shall not be construed to refer to the ordinary application of pesticides for the purposes for which they are intended.

An order adopting this emergency rule was filed and effective August 25, 1971, as R.1971 d.145 (Exempt, Emergency Rule).

Albert E. Bonnoci
Director of Administrative Procedure
Department of State

SHELL CHEMICAL COMPANY
A DIVISION OF SHELL OIL COMPANY
P.O. BOX 813
PRINCETON, NEW JERSEY 08540

4100 QUAKER BRIDGE ROA
LAWRENCE TOWNSHIP, NEW JERSE
TELEPHONE 799-0760 C
586-17?

AGRICULTURAL CHEMICALS DIVISION

August 27, 1971

Subject: Disposal of Agricultural Pesticide Residues from Harvard Warehouse Fire

Director Grant F. Walton
New Jersey Department of Health
Department of Environmental Protection
Div. of Environmental Quality
Health Building - Room #604
Trenton, New Jersey

Dear Sir:

Further to our discussions of August 26, we enclose our proposed program covering disposal of the residue from the Harvard warehouse fire which took place on August 2. The proposal is based on an agreement reached with Scientific Chemical Processing, Inc., in which they have agreed to handle these wastes as outlined.

In the event that for any reason Scientific Chemical Processing relocates or ceases operation at the site on which our materials are stored prior to acceptable decomposition, Shell agrees that, if necessary, they will reassume their responsibility for ultimate disposal. Also, data obtained during the decomposition period will be furnished, as received, to the State Department of Environmental Protection.

The warehouse site will be decontaminated to the best of our ability. However, we would prefer that State or local officials confirm the acceptability of this location for further use.

We trust that these agreements and attached program will meet with your approval in the near future so that we can begin ultimate disposition.

Very truly yours,

J. T. Robson, Manager
Princeton Plant

Enclosure

PROPOSED DISPOSAL OF HARVARD WAREHOUSE FIRE RESIDUES

Basic components of the residue from the Harvard Warehouse fire at Kearny, New Jersey, consist of a structural steel and corrugated iron building which was essentially destroyed by the fire, residues from both chlorinated hydrocarbon and organophosphate pesticides, as well as a large amount of inert material including paper, wire, glass, burned out drums, etc.

It is proposed to dispose of the residues as follows:

1. The structural steel has been isolated from the rubble and is located on site awaiting removal. Contamination with pesticides is virtually nil since in every instance the steel collapsed into the area of the fire. Contact with warehouse contents was limited to the burned detoxified residues surrounding the columns. Contamination of the surface of the steel has further been minimized by extensive washing through the natural action of heavy rains in the area which tended to further reduce carbonized deposits. Several truck bodies are also included in the structural steel pile. They were not located in a product storage area and, thus, are totally free of toxic contaminants. Our examination of this material indicates that it should be entirely suitable for disposal in any landfill or salvage operation without any concern as to further contamination of the environment.

   Supervision would be provided by Shell during the steel removal operation to insure that all steel was free of any evidence of contamination.

2. The bulk of the remaining residue consisting of approximately 600-650 yds. of material is now stored in 17 containers (truck bodies and roll-off containers) ready for delivery to an approved location. Approximately one to two tons of soda ash has been mixed with the contents in each container, including one which holds the bulk of the chlorinated hydrocarbons. Samples taken of the chlorinated hydrocarbon residue indicate the concentration has already been reduced by the fire so that on the average only a very low concentration of toxic material remains. The highest concentration found in this residue was less than 1%.

   Finally, in addition to the contained rubble, approximately 300 to 400 gallons of organophosphates of low concentration and low mammalian toxicity removed intact in one-gallon bottles from the site must also be destroyed.

3. We have contacted several companies knowledgeable and competent in the area of handling toxic wastes such as the ones under consideration. We propose to employ the services of the Scientific Chemical Processing Company in arranging for the ultimate disposal of this material. Briefly, their plan is outlined as follows:

   a. Containers will be delivered to their site in Carlstadt, New Jersey. We plan to supervise this movement as well as assure adequate sealing of containers during transport to prevent leakage of pesticides on the highway while in transit. With the exception of the container of chlorinated hydrocarbons, the material will be stored in a sealed concrete basin to insure adequate isolation from the environment. An alkaline pH will be maintained in the pit to achieve degradation of any remaining organophosphates.

   b. Liquid wastes still contained in glass bottles and now in sealed open-head drums will be added to the alkaline material to insure decomposition, since all liquids remaining are organophosphates.

   c. The chlorinated hydrocarbon residue will be maintained in a sealed segregated area and disposed of either by incineration, burial in a site which may ultimately be approved, or degraded in situ. It appears at the present time that incineration in a scrubbed incinerator will be the most likely method of disposal ultimately chosen. However, development in disposal technology may indicate another alternative to be more desirable. In any event, the method chosen for ultimate disposal will not be carried out without agreement of the State agencies involved.

      The facilities at the site include an incinerator with a vent gas scrubber which could be used, if necessary, at the incineration operation.

   d. All phases of this operation will be accomplished in compliance with any appropriate State, Federal and local regulations. Site will be monitored to insure wastes are totally contained and final disposition will not be proposed until the State agencies involved agree that toxicity no longer presents a problem. Interested State agencies will be permitted access to the site for sampling or inspection.

State of New Jersey
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF ENVIRONMENTAL QUALITY
JOHN FITCH PLAZA, P.O. BOX 1390, TRENTON, N.J. 08625

September 2, 1971

Mr. J. T. Robson
Manager
Shell Chemical Company
P.O. Box 813
Princeton, New Jersey 08540

Dear Mr. Robson:

Re: Disposal of Agricultural Pesticide Residues from Harvard Warehouse Fire

We have reviewed your plan of August 27, 1971, for the disposal of pesticide residues and contaminated debris from the site of the Harvard Warehouse fire. We have, also, your letter of the same date committing Shell Chemical Company to responsibility for the eventual safe disposal of this material.

Having the assurances of that letter and finding the disposal plan adequate, we now approve the plan, understanding that it will be executed forthwith.

The Department wishes to thank Shell Chemical Company for its commendable cooperation during this emergency.

For and on behalf of
Grant F. Walton
Director

Thomas R. Walker, Jr.

by: Thomas R. Walker, Jr.
Administrative Assistant

State of New Jersey

DEPARTMENT OF LAW AND PUBLIC SAFETY

DIVISION OF LAW

STATE HOUSE ANNEX

TRENTON 08625

GEORGE F. KUGLER, JR.
ATTORNEY GENERAL

MARILYN LOFTUS SCHAUER
FIRST ASSISTANT ATTORNEY GENERAL

September 3, 1971

Shell Chemical Company
P.O. Box 813
Princeton, New Jersey 08540

Attention: Mr. J. T. Robson, Manager

Re: Disposal of Agricultural Pesticide Residues

Dear Mr. Robson:

My understanding of our telephone conversation of September 2, 1971, regarding your pesticide residue disposal plan, is that prior to your depositing the material into a basin or other container at Solomitic Chemical Processing, you will notify the Department of Environmental Protection so that it may inspect the sites to see if the manner is adequate and the surfaces adequately sealed. Please consider this a qualification to Mr. Walton's letter of approval dated September 2, 1971.

Thank you once again for your cooperation.

Very truly yours,

George F. Kugler, Jr.
Attorney General

By [signature]
Lawrence E. Stanley
Deputy Attorney General

LES:lc
cc: Grant F. Walton

FILED

APPENDIX 18

EQUIPMENT AND MATERIALS USED IN CLEAN-UP OF HARVARD WAREHOUSE SITE

Safety Glasses

Safety Goggles

Rubber Gloves

Rubber Boots

Rubber Aprons

Face Shields

Rubber Suits

Coveralls

Canister-Type Gas Masks

Scott Air Pac Self-Contained Breathing Apparatus

Filter Respirators

pH Paper

Sample Bottles

Sample Labels

Masking Tape

Shovels

Rakes

Fire Hose, Hydrant Wrench and Fire Nozzle

15 yd., 20 yd., 30 yd., and 40 yd. Roll-off Containers

55-gallon Steel Open-Head Drums

55-gallon Bung-Type Drums

Drum Liners (Plastic Bag)

55-yd. Open-Body Trailers

Soda Ash

Hydrated Lime

18% Na OH Solution

Attapulgus Clay

10' x 30' Canvas Tarpaulins and Clamps

Forklift

Drum Pallets

D-9 Caterpillar Front-end Loader

Michigan D-80 Blade

Camera and Film

Crane with Claw Bucket

Cutting Torch

Soap and Towels

First Aid Kit

Cholinesterase Field Test Kit

Duc Tape

Graphite Packing

APPENDIX 19

EXPENDITURES FOR HARVARD WAREHOUSE FIRE CLEAN-UP

Security (Kearny Police Dept.)[a]	$ 2,660.00
Scientific Chemical Treatment Company[a]	5,093.13
Ouick-Way Construction[a]	9,100.00
Scientific Chemical Processing, Inc.	11,100.60
City Construction Company	2,730.00
Industrial Refuse Removal Specialists	8,095.00
Ed Wisely (Signs)	45.00
Gold Corporate, Inc. (Drums)	167.00
Brown Chemical Company (Soda Ash)	498.75
Charles Shaefer and Son (Soda Ash)	1,807.39
TOTAL COST	$41,296.97[b]
COST DISTRIBUTED TO OTHERS	$ 8,372.00
TOTAL COST TO SHELL	$32,924.87

[a] Total charge for these three services was $16,853.13. This charge was split - $1,000.00 to L. J. Kennedy Trucking Company, $7,372.00 to J. T. Baker Company, and $8,481.13 to Shell Chemical Company.

[b] Cost figures are estimates only since some invoices have not yet been received and approved for payment.

SHELL CHEMICAL COMPANY
A DIVISION OF SHELL OIL COMPANY
P.O. BOX 813
PRINCETON, NEW JERSEY 08540

4100 QUAKER BRIDGE ROAD
LAWRENCE TOWNSHIP, NEW JERSEY
TELEPHONE 799-0760 OR
586-1770

AGRICULTURAL CHEMICALS DIVISION

September 27, 1971

Mr. Paul Elliot
Regional Director
Environmental Protection Agency
Research & Development
Raritan Depot
Woodbridge Avenue
Edison, New Jersey 08817

Dear Mr. Elliot:

Per your request, attached is a list of pesticide products stored in building #3 of the Harrand Warehouse prior to their fire of August 2. The list is only an approximation since the records necessary to obtain exact product inventories were destroyed in the fire, but we believe it to be a very close approximation.

While many of the pesticides were originally present at high concentrations, analyses of the residue indicates the heat of the fire reduced toxic content to the range of parts per million. As I mentioned to you on the telephone, none of the contents of this building were salvageable.

I trust the attached is sufficient for your intended purposes. Please feel free to contact me if you have any further questions.

Very truly yours,

ORIGINAL SIGNED BY
J.M. CONNELLY

for: J. T. Robson, Manager
Princeton Plant

Attachment

cc-FOR60 bc: Mr. J. M. Connelly

SHELL PRODUCTS ESTIMATED TO BE IN BUILDING #1

AT HARVARD WAREHOUSE - KEARNY, NEW JERSEY

Product	Estimated Quantities, Pounds
Aldrin, Technical	4,000
Aldrin, 4 E. C.	5,550
Aldrin, 20%w	4,800
ALDRITE® Insecticide	31,500
Dieldrin, Technical	26,600
DIELDRITE® Insecticide	1,400
GARDONA® Wettable Powder	6,156
PHOSDRIN®, Technical	5,400
D-D® Soil Fumigant	8,500
NEMAGON®, 12.1 lbs./gal.	5,250
NEMAGON, E. C.	2,700
PLANAVIN® Herbicide	1,008
PLANAVIN 4 lbs./gal.	3,000
CLODRIN®, Technical	2,430
VAPONA® Insecticide	68,000
VAPONITE®, 2 E. C.	28,550
VAPONA, 2 E. C.	9,850
Scatter Bate	9,910
CIOVAP® solution	61,550
CIOVAP, E. C.	12,150
RAVAP*, E. C.	12,000
Endrin	48,200
NO-PEST® Strip	330,000 units

*Registration Pending